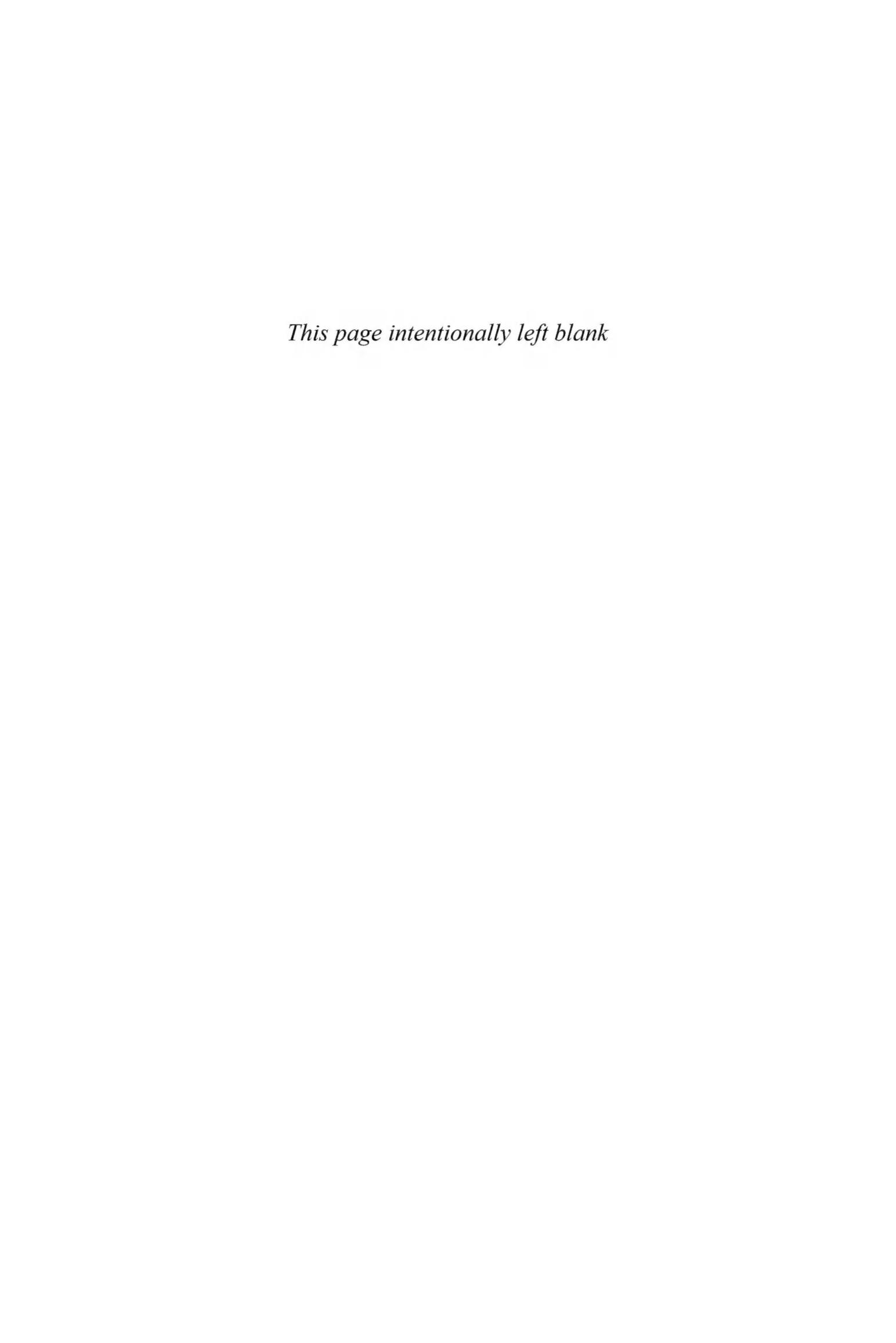


CURIOSITY AND WONDER FROM THE RENAISSANCE TO THE ENLIGHTENMENT



Curiosity and Wonder from the Renaissance to the Enlightenment

Edited by R. J. W. Evans and Alexander Marr



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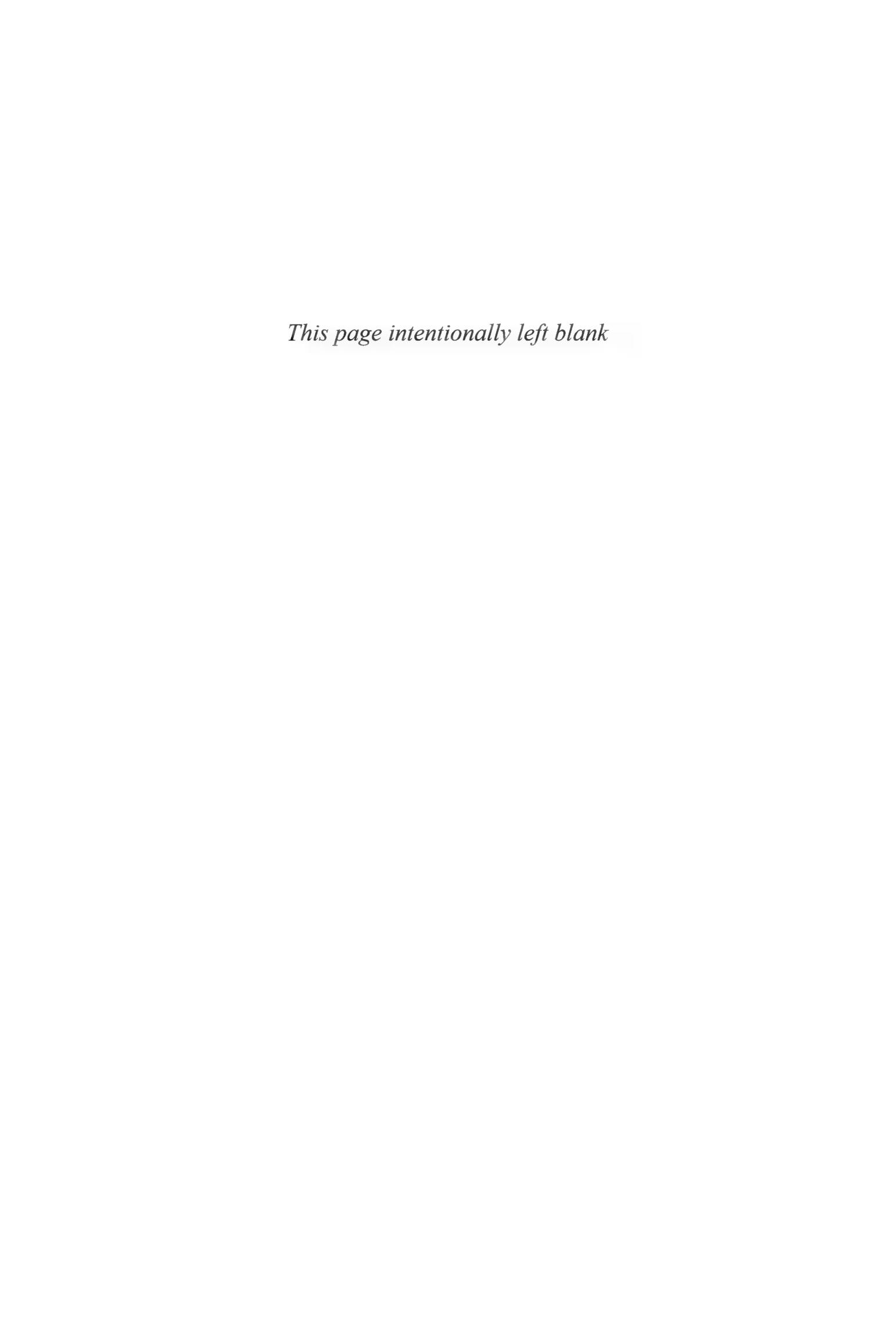
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Preface

'Curiosity' and 'wonder' are a pair of basic concepts much in evidence during the entire early modern period. From Renaissance to Enlightenment they interacted and reinforced each other; and like all really significant concepts, both terms gave rise to an enormous range of usage and versatility of treatment. One particularly pregnant ambiguity lay in their alternate subjectivity and objectivity: they could be attitudes of mind, or the more or less physical phenomena of contemplation. People could exhibit curiosity and – as a consequence – assemble collections of curiosities; they could wonder at the natural wonders which they experienced. More important still, the words' connotations might be bad or good: curiosity could tempt the incautious, but also impel the enterprising; wonder might imply, on the one hand, primitive incomprehension or, on the other, an engagement with the truly marvellous.

The whole topic area has been reconfigured in recent decades, and from a variety of international perspectives. One major strain has come from Germany, where the development of a 'history of concepts' (Begriffsgeschichte) proved a hugely fertile tool for intellectual inquiry. In this field it has been associated particularly with the name of the philosopher Hans Blumenberg. There is plenty about him in the pages which follow; as also about some contemporaries in France, like the Warsaw-born Krzysztow Pomian, who have placed curiosity and wonder under scrutiny as part of their overall project to examine changing structures of thought. From these and many other sources – like the outstanding Anglo-American work of Lorraine Daston and Katharine Park or Neil Kenny, similarly highlighted in what follows – have come large questions, some of them addressed in this book.

What was the meaning of the sixteenth-century's obsession with monsters or with the so-called *Wunderkammern*, or 'cabinets of curiosities', so widespread in the seventeenth? Were shifting notions of curiosity and wonder connected to the experience of discoveries, geographical and scientific, in this era, and

to new forms of travel or experiment? Can they be aligned with the occult preoccupations of the late Renaissance or with the passage of artistic creativity from what we have come to call Renaissance, through Mannerism, to the Baroque and beyond? Can they help us plot the move to new priorities in the eighteenth century, to an emphasis on imagination, on the exotic, on the antiquarian?

These are only some of the issues raised by a consideration of curiosity and wonder in the early modern age. Our collection aspires to cast fresh light on them and adduce new kinds of testimony to their pervasive influence. Yet it cannot hope to embrace all aspects, even of the basic vocabulary involved. Whereas, for example, our purview extends to the related theme of 'enthusiasm', which by the eighteenth century played a major part in the evolution of Protestantism, it does not attempt to treat the notion of 'miracle', which evidently had a central role in the (self-)perception of Catholicism during the Counter-Reformation and later. Much scope remains for further investigation.

The present volume owes its existence squarely to my co-editor, Alexander Marr. Alex first conceived it, while still at an early stage in his career as a graduate student at Oxford, in the form of a seminar. Under the aegis of the Modern History faculty he organised a highly successful double series of sixteen presentations, the majority of which, suitably revised where appropriate, constitute the chapters in this book. Even at the editorial stage, Alex's involvement has been the greater, though we have shared the tasks of selecting and checking typescripts. He has been a model young scholarly entrepreneur, on a par with some of those questing projectors about whom he writes in Chapter 8 below.

In the process Alex and I have accumulated many debts. First and foremost we should like to thank David Parrott, who enthusiastically championed this project from the beginning. Pamela Smith and Margaret Pelling kindly read and commented on the text. The following have generously provided advice and support: Jim Bennett, Robin Briggs, Suzanne Butters, Mary Campbell, Timothy Chesters, Harold Cook, Lucia Dacome, Sabine Eiche, Mordechai Feingold, Paula Findlen, Robert Fox, Alex Gajda, Lavinia Greenlaw, Stephen Johnston, Elaine Leong, Rhodri Lewis, Ian Maclean, Christie Marr, Amanda Savile and the staff of the library of The Queen's College Oxford, Richard Scholar, Fred Schurink, Margaret Small, John Smedley, Hubert Stadler, Jackie Stedall, Noel Sugimura, Anthony Turner and Charles Webster. Attendees of the original seminars likewise made their contribution. And we are especially grateful to Teena Stabler for her hard work at every stage of the undertaking.

Introduction

Alexander Marr

If any thinke these histories strange, he may see the very title sayes as much. And it is good for an author to be as good as his title. And this being a translation, it must be strange. If any thinke that by the name of history all should be true, he may knowe Historiographers confesse they may write as they list ... And very tales are heard or read by most of us with good delight. These from good authors to good purpose are in good sort set down. Then sit thee down and make thy good of them for have thou a good memory and they will prove memorable.

E. Grimestone's preface to his translation of S. Goulhart, *Admirable and Memorable Histories Containing the Wonders of Our Time* (1607), A3^v

Il n'est desir plus naturel que le desir de connaissance. Nous essayons tous les moyens qui nous y peuvent mener. Quand la raison nous faut, nous y employons l'experience. Montaigne, 'De l'experience', *Essais*, bk. III, ch. 13

Curiosity and wonder share a common history. Aristotle followed his famous statement in the *Metaphysics* – 'All men by nature desire to know' – with the assertion that this desire for knowledge is closely related to the passion of wonder: 'For all men begin, as we said, by wondering that things are as they are ...'.¹ As Lorraine Daston and Katherine Park observe in their masterful study *Wonders and the Order of Nature*, 1150–1750, 'wonder has its own history', but this history is 'tightly bound up with the history of other cognitive passions such as terror and curiosity.'² One of the guiding principles of this volume is that in the early modern period connections between wonder and curiosity are sufficiently explicit, intricate and widespread to merit their thematic coupling.³ This is not to suggest, however, that the terms are or were

¹ On the Aristotelian tradition of wonder, see, for example, L. Daston and K. Park, *Wonders and the Order of Nature*, 1150–1750 (New York, 1998), especially ch. 3. Daston and Park point out that for Aristotle and his Latin commentators, the search for knowledge prompted by wonder (thauma) was distinct from what was then understood as curiosity (pereirga) (305). It is generally agreed, however, that histories of curiosity and wonder are profoundly concerned, albeit in many different ways, with enquiry and its objects. See, for example, N. Jacques-Chaquin, 'La curiosité, ou les espaces du savoir' in N. Jacques-Chaquin and S. Houdard (eds), *Curiosité et 'Libido Sciendi' de la Renaissance aux Lumières*, 2 vols (Fontenay-aux-Roses, 1998), i, 13–34.

² Daston and Park, Wonders, 15.

³ It has been noted that in many early modern contexts wonder and curiosity enjoyed a sequential relationship. For example, Nigel Leask has observed that for Lord Kames: 'novelty

interchangeable. Despite their lexical and semantic proximity in a host of discourses, from the proper approach to investigating nature to the description and interpretation of works of art, each has its own trajectory, though often difficult to disentangle from its neighbour. Indeed, one of the problems facing historians of the meaning and interpretation of curiosity and wonder from the sixteenth to the nineteenth century is finding plausible ways to distinguish between these and a host of related concepts, words and things.⁴ As Neil Kenny explains: 'the behaviour of "curiosity" has much in common with many other "concepts" which served, in early modern contexts and times, to construct knowledge and/or desire: "interest", "wonder", "marvel", "strangeness", "subtlety", "secret", "rarity", to name but a few.' Indeed, if it can be said that there is any consensus, no matter how loose, about the nature of curiosity and wonder in the early modern period, it is the sheer diversity of meanings, interpretations and uses attached to these objects from the Renaissance to the Enlightenment. For Stephen Greenblatt, Barbara Benedict, Mary Campbell and others, a defining characteristic of early modern curiosity and/or wonder is ambiguity.⁶ Kenny, in particular, has highlighted the instability of curiosity as both a 'concept' and a set of words, noting the 'fuzzy boundaries' of its semantic and conceptual borders, rendering the study of curiosity (and indeed wonder) inherently problematic. Similarly, Peter Platt has noted the difficulty of isolating any specific definition of wonder given that 'no unified vision of the marvelous existed: it was a concept full of inconsistency and variety in the Renaissance.'7

[&]quot;invariably raises" wonder, which in turn "inflames curiosity" to know more.' N. Leask, *Curiosity and the Aesthetics of Travel Writing* 1770–1840 (Oxford, 2002), 25. For other early modern instances of a similarly sequential relationship between curiosity and wonder, see, for example, Daston and Park, *Wonders*, ch. 8 'Curiosity and Wonder Allied', 311–15.

⁴ See N. Kenny, 'Interpreting Concepts after the Linguistic Turn: The Example of *Curiosité* in Le Bonheur des sages / Le Malheur des curieux by Du Souhait (1600)', Michigan Romance Studies, 15 (1995), 241–70 and Curiosity in Early Modern Europe: Word Histories (Wiesbaden, 1998), ch. 1, for the differing methodological approaches to the history of curiosity.

⁵ Kenny, Curiosity in Early Modern Europe, 14. On the word history of 'curiosity', see also A. Labhart, 'Curiositas: Notes sur l'historie d'un mot et d'une notion', Museum Helveticum (1960), 206–24; K. Pomian, Collectors and Curiosities. Paris and Venice, 1500–1800 (Cambridge, 1990), 53–9.

⁶ Greenblatt uses a passage from Jean de Léry's *History of a Voyage to the Land of Brazil* to suggest 'the ambiguities of wonder in the New World' (S. Greenblatt, *Marvelous Possessions: The Wonder of the New World* [Oxford, 1991], 14), while for Barbara Benedict 'ambiguity characterises curiosity in all its manifestations throughout the Early Modern period' (B. Benedict, *Curiosity: A Cultural History of Early Modern Enquiry*, 3). This is seemingly at odds with her assertion that curiosity takes on 'distinct shapes' in the same period (2). For Campbell, moments of wonder in early modern Europe are 'rich with ambivalence and undecidability'. M. B. Campbell, *Wonder and Science: Imagining Worlds in Early Modern Europe* (Ithaca and London, 1999), 2. As Peter Platt observes, the 'unresolvable or inexplicable' are both causes of the marvellous in the Renaissance. P. G. Platt, 'Introduction' in P. G. Platt (ed.), *Wonders, Marvels, and Monsters in Early Modern Culture* (London and Newark, 1999), 15–23, 16. See also Jacques-Chaquin, 'La curiosité, ou les espaces du savoir'.

⁷ Platt, 'Introduction', 16.

Such plurality is reflected by the different topics addressed in the contributions to this volume: the perils of curiosity and sixteenth-century travel; debunking wonders in mid-eighteenth century Italy; the princely cabinet of curiosities; collecting as metaphor, spoof and melancholy satire; the contested curiosity of wonder-working and occult science; early modern introspection and curiosity about the body; the location of wonders within eighteenth-century selves. This variety of subject matter is paralleled by the abundance of words and things used to denote curiosity and wonder in early modern Europe. For example, John Minsheu's celebrated *Guide into Tongues* (first edition, 1617) parades the lexical and semantic proximity between wonder, marvels and admiration, in both Latin and European vernaculars:

251: to Admire. G. Admirér. I. *Amirare*. H. Admirár. B. Werwonderen. T. Werwunderen. Vi. Wonder, and Maruell.

b. an Admirer, or wonderer. G. Admiratéur. I. Ammiratóre. H. Admiradór. L. Admirátor, óris. B. Werwonderer. T. Werwunderer.

7895: a Maruaile, or wonder. G. Merueílle. I. Marauíglia. H. Marauílla, à Lat. Mirabilis, wonderfull. L.Mirum, Miráculum, à miror, to wonder. Gr. θοῦμα, à θαυμάζω, i. miror, hoc autem à θεώμαι, i. video, circumspicio: quæ enim suspicimus & admiramur, ea quàm maximè intentis oculis solemus intueri. Vi. cætera in Wonder.

b. to Maruaile. G. Merueillér. I. Marauigliáre. H. Marauillár. L. Admirári. Vi. to Wonder.

14588: to Wonder. B. Werwonderen. T. Werwunderen, Wunderen. G. Admirér, S' esmerueillér. I. Marauigliársi. H. Marauillárse. L. Admirari, Mirari. Gr. θαυμάζω, à $\theta \alpha \delta \mu \alpha$, i. miraculum, \P Etym: Vi. to Maruaile.

b. a Wonder. B. Wouder. T. Wunder. L. Mirum,* Miriones dici, ¶ Varro de ling. Lat. lib. 6. H. Milagro o Marauilla. G. Mirácle, Meruéille. I. Mirácolo, Marauiglia, à L. Miraculum. Gr. $\theta o \tilde{\nu} \mu \alpha$, à $\theta \epsilon \alpha \mu \alpha$, i. spectaculum. Vi. Maruaile.

14589 Wonderfull. B. Wonder-lijc, Wonder-bar. T. Wunderbar. G. Merueilléux. Vi. Maruailous.⁸

This variety is exacerbated when we distinguish wonders and curiosities from, for example, the 'passion' of wonder or the 'concept' of curiosity. The intertwined histories of these objects and objectifications reveal inconsistencies and contradictions that have been viewed either as constitutive of the very meaning of early modern curiosity or unwelcome aberrations in the modern reconstruction of overarching 'concepts'.9

How, then, should we go about studying curiosity and wonder? The last three decades have seen a veritable cornucopia of studies devoted to various aspects of curiosity and wonder, predominately, though not exclusively, focused

⁸ J. Minsheu, *The Guide into Tongues* (2nd edition, 4th issue, London: John Haviland, 1627) 15, 450, 754. On the early modern lexicon of wonder, see Daston and Park, *Wonders*, 16 and ns 8, 9, 10.

⁹ For the purposes of this introduction I will be referring to both curiosity and wonder as 'concepts', although it is questionable (as Kenny points out in this volume) whether curiosity can really be deemed a concept at all. See Kenny, *Curiosity in Early Modern Europe*, 17–18.

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on the sixteenth, seventeenth and eighteenth centuries – the chronological span of this volume. Historians of science, religion, literature, art and society; anthropologists, literary critics, philosophers; all have contributed to what has become a large and complex literature on the subjects examined here. Yet if curiosity and wonder are increasingly (though by no means universally) acknowledged as important topics for students of the early modern period, disagreement about how and where they should be studied and interpreted is similarly growing. The extensive, sometimes bewildering, range of subjects and objects embraced by the study of curiosity and wonder are informed by an equally extensive set of methodologies. As such, this introduction does not aim to provide an exhaustive list of works concerned with curiosity and wonder but, instead, to offer a guide through this literature and some of its historiographical developments, identifying the different approaches at work, pointing to areas where there is agreement or disagreement, and suggesting potential areas for future research.

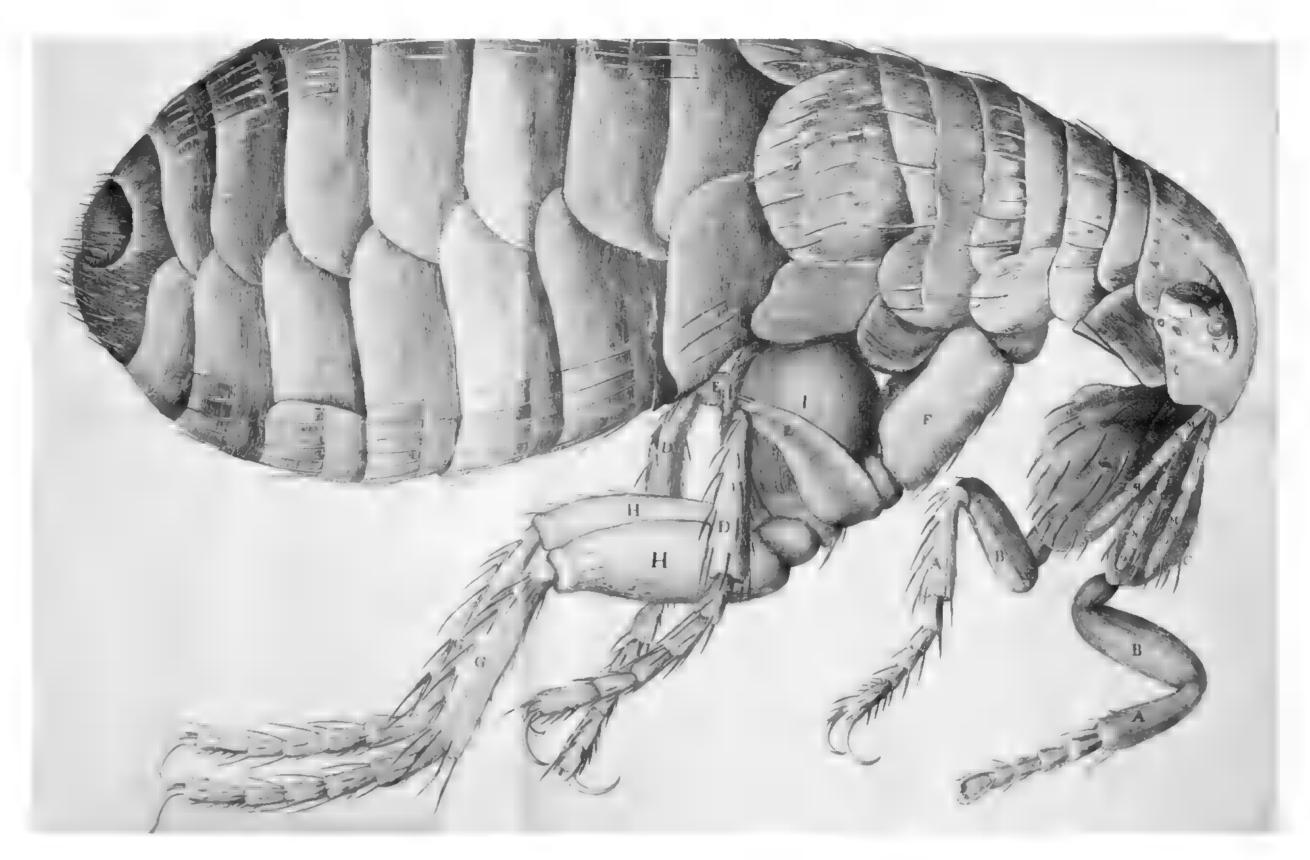
One of the principles underlying this volume is that the lens of curiosity and/ or wonder offers a legitimate tool with which to assess the rich interconnections between early modern objects, texts, individuals and ideas. The present volume does not offer up curiosity and wonder as a unique new 'key' with which to unlock, for example, the Scientific Revolution. Rather, they are suggested as vantage points from which to view the intersections and divergences of a host of currents, motifs and sensibilities in early modern cultural and intellectual life.12 The study of curiosity and wonder offers, we believe, rewarding ways in which to link the voyages of discovery to medical practices, collecting to the formation of scientific academies, without resorting to anachronistic terms of reference or convenient, but historically inaccurate, conceptual categories. There is, of course, the danger that curiosity and wonder can be applied superficially and a-historically. Indeed, one result of the surge of interest in curiosity and wonder has been a tendency to fit anything and everything to the study of these themes, creating an indiscriminate Wunderkammer of dubious historical veracity.¹³ If, as Barbara Benedict has claimed, curiosity took on 'distinct historical shapes' in the early modern period, it is surely important to

Nicholas Jardine, for example, recently questioned whether works such Daston and Park's Wonders can 'come to terms with larger explanatory questions concerning the coming-into-being of scientific disciplines and the consolidation of new questions and new doctrines within those disciplines'. N. Jardine, 'Books, Texts and the Making of Knowledge' in M. Frasca-Spada and N. Jardine (eds), *Books and the Sciences in History* (Cambridge, 2000), 393–407.

It should be noted that Neil Kenny's most recent contribution to the subject, *The Uses of Curiosity in Early Modern France and Germany* (Oxford, 2005), has not been taken into account for the present introduction as this work appeared while the present collection of essays was in press.

¹² Cf. Daston and Park, Wonders, 18.

¹³ See, for example, B. M. Stafford, 'Revealing Technologies/Magical Domains' in B. M. Stafford and F. Terpak, *Devices of Wonder: From the World in a Box to Images on a Screen* (Los Angeles, 2001), 1–109. Daston and Park offer a useful critique of anachronistic definitions in *Wonders*, 15.



1.1 Magnified flea from Robert Hooke, *Micrographia* (1665). Reproduced by kind permission of the Provost, Fellows and Scholars of The Queen's College, Oxford.

attend to those contexts that allow us to accurately identify and describe these shapes and how they changed over time.

To do so means recognising that what we might understand today as 'curious' or 'wonderful' is not necessarily equivalent to what early modern individuals understood these terms to mean. To take a recent example, Philip Fisher's assertion in *Wonder, the Rainbow and the Aesthetics of Rare Experiences* that for wonder 'there must be no element of memory in the experience', simply does not hold when specific instances of wondering are analysed in their appropriate historical context. Turning to that *locus classicus* of early modern wonder – the engraved representations of magnified natural objects in Robert Hooke's *Micrographia* (Fig. 1.1) – we find that the marvelling engendered by the 'new visible World discovered to the understanding' by the microscope was, at least in part, excited by the *remembrance* of regularly observing 'little Objects ... a Flea, a Mite, a Gnat' without the aid of instruments. The essays

¹⁴ Philip Fisher, Wonder, the Rainbow, and the Aesthetics of Rare Experiences (Cambridge, MA and London, 1998), 18.

¹⁵ R. Hooke, *Micrographia: or Some Physiological Descriptions of Minute Bodies made by Magnifying Glasses* (1665), g[1^v]. Fisher characterises sudden, novel experiences that involve an element of expectation or memory as 'mere surprise' (21). On the relationship of microscopy to seventeenth-century attitudes to curiosity and wonder, see, for example, J. C. Abramovici, 'Entre vision et fantasme: la reception en france des "curieux microscopes" (1600–1800)' in Jacques-Chaquin and

in this book all attempt to approach curiosity and wonder through early modern eyes.

Hooke's observations using the microscope serve to introduce some of the key recurring themes in the study of curiosity and wonder from the Renaissance to the Enlightenment – human enquiry into the natural world; the sustained scrutiny of specific objects; the revelation of the hidden; rapturous admiration at the handiwork of God; the emotional and cognitive response at experiencing the new or unfamiliar – subjects that were intricately interconnected in the period with which we are concerned. These interconnections pose problems for the historian of curiosity and wonder. How do we go about writing an integrated history of either concept, let alone both? By far the most frequently adopted approach is the (entirely reasonable) setting of subject parameters. Benedict's wide-ranging *Curiosity: A Cultural History of Early Modern Enquiry*, for example, is emphatically *not* a history of science, while Kenny's excellent *Curiosity in Early Modern Europe: Word Histories* addresses its theme by focusing on semantic shifts in the lexicon of curiosity.¹⁶

By offering a collection of essays this volume aims to overcome some, but by no means all, of the problems associated with the study of curiosity and wonder. By presenting several sharply focused, individual studies we have attempted to preserve (as much as possible) the fine grain that is essential for a proper understanding of the complicated, multivalent character of our themes.¹⁷ Moreover, we hope to retain the diverse, even contradictory meanings and understandings of early modern curiosity and wonder, without obscuring connections between subject domains, periods, individuals and artefacts. As such, the reader will find a number of familiar *topoi* from the canon of curiosity and wonder – travel, collecting, natural philosophy, the body – treated locally and specifically but always linked to the unifying threads that run throughout the book.

A number of recent studies have argued that the history of curiosity and wonder should not be conceived as a clearly defined, linear narrative. Kenny, in particular, has been at pains to point out that curiosity has two kinds of history: a 'histoire événementielle, involving rapid twists, and also a longue durée

Houdard, Curiosité et 'Libido Sciendi', ii, 393-422; Daston and Park, Wonders, 313-15.

¹⁶ Similarly, Justin Stagl limits his account to travel in *The History of Curiosity: The Theory of Travel 1500–1800* (Chur, 1995); Antoine Schnapper to collecting in *Le Géant, La Licorne, La Tulipe: Collections françaises au XVIIe siècle* (Paris, 1988) and *Curieux du Grand Siècle: Collections et collectionneurs dans la France du XVIIe siècle* (Paris, 1994); and Fisher to aesthetics in *Wonder.* In addition to Daston and Park's *Wonders*, examples of a more integrated approach include Campbell, *Wonder and Science.*

¹⁷ A similar approach can be found in J. Céard et al. (eds), La Curiosité à la Renaissance (Paris, 1986); Jacques-Chaquin and Houdard, Curiosité et 'Libido Sciendi'; Platt, Wonders.

effect, whereby relatively stable meanings were sustained over centuries'. ¹⁸ Similarly, for Daston and Park wonder is a set of 'sensibilities that overlapped and recurred', and they are rightly suspicious of the grand narrative charting 'the transformation of curiosity from grave vice to outright peccadillo'. ¹⁹ Before considering some of the more recent approaches to the study of curiosity and wonder, however, it is worth briefly outlining the established narratives to which these and other scholars have responded, and which frame many of the discussions in the present volume. ²⁰

Perhaps the most influential account of early modern curiosity is Hans Blumenberg's Der Prozeß der theoretischen neugierde ('The Trial of Theoretical Curiosity').21 In this account, first published in 1966, curiosity's 'trial' begins with the establishment of the legitimate, theoretical investigation of the world by Greek philosophy (especially Plato, Aristotle and the Stoics) proceeding to the limitations imposed on curiosity by its condemnation as a vice (mala or vana curiositas) by the Church fathers (notably Augustine). These limitations were gradually broken down over the course of the sixteenth century, culminating in the so-called Scientific Revolution (epitomised by Galileo's telescopic observations), which 'proved' the Copernican hypothesis.22 Crucially, these observations 'rewarded' curiosity with the result that 'the weighty significance of what had hitherto been withheld from man is confirmed, and thus the morality of self-restriction is disabused and put in the wrong, and its abandonment is a logical consequence. '23 This abandonment of 'selfrestriction', Blumenberg claims, paved the way for the Enlightenment and the systematic investigation of nature culminating in the Modern Age of science.

¹⁸ Kenny, Word Histories, 15.

¹⁹ Daston and Park, Wonders, 306.

There is not space here to distinguish in any great detail between narratives of curiosity and narratives of wonder. It should be noted, however, that while Blumenberg offers a clear narrative history of curiosity, there has not, as yet, been a comparable attempt to construct a similar history of wonder. Despite their argument against this approach, Daston and Park's *Wonders* perhaps comes closest to this type of narrative history for wonder (see below).

Subsequent references are to H. Blumenberg, 'The Trial of Theoretical Curiosity' in H. Blumenberg, *The Legitimacy of the Modern Age*, trans. M. Wallace (Cambridge, MA and London, 1983), 229–453.

It is no accident that one of Blumenberg's emblematic moments in the transformation of curiosity rests on sight. He makes much of Aristotle's assertion in the *Metaphysics* that the sign of man's unequivocal desire to know is a delight in sensation, sight being pre-eminent among the senses for its ability to distinguish between things ('Trial', 255). For Blumenberg, the unfettering of curiosity occasioned by Galileo's observations returns the desire to know to its original status in the classical world: '[the telescope] had become a factor in the legitimation of theoretical curiosity precisely because, unlike any experimental intervention in the objects of nature, it could be adapted to the classical ideal of the contemplation of nature.' There is not space in this introduction to discuss the manifold ways in which attitudes towards the senses affected early modern curiosity and wonder, but see, for example, D. Summers, *The Judgement of Sense: Renaissance Naturalism and the Rise of Aesthetics* (Cambridge, 1987).

²³ Blumenberg, 'Trial', 369.

The seductive (as Kenny would have it) qualities of this narrative, in which the heroes of modern science liberate man's natural curiosity from the restrictions placed upon it by an authoritarian Church, were noticed early on. In the review essay 'Work on Blumenberg' William Bouwsma perceptively observed that Blumenberg 'is a philosopher in the mode of the Enlightenment, with its belief in progress through the intellectual mastery of the world (the immediate subject of *The Legitimacy of the Modern Age*)', noting that 'although most of us have had to give up on the assurance of the Enlightenment, it remains a temptation to which we would still like to believe we can yield.'²⁴ As Kenny and others have suggested, it is extremely difficult to abandon grand narratives when addressing the history of curiosity or wonder. One alternative, adopted in this volume, has been to provide a number of local narratives rather than a single, unified grand narrative.

The essays in this book chart the ways in which curiosity and wonder changed or remained stable over time, in different contexts, and from place to place, through a variety of comparative case-studies across a broad chronological period. This approach reveals, for example, that while wonders had become the stuff of satire in late seventeenth-century England, as Claire Preston explains in her discussion of Thomas Shadwell's *The Virtuoso*, this did not mark the end of their currency in other times, places and discourses.²⁵ Paola Bertucci, for instance, shows that the 'love of the marvellous' was strong enough in mid-eighteenth-century Italy to prompt the undertaking of a tour to 'debunk' marvels and curiosities by the experimental philosopher Jean Nollet. Similarly, we can compare the 'jokes of art and nature' displayed in the collections of Cosimo de'Medici, discussed by Adriana Turpin, with the mid-eighteenth-century English polymath John Hill who, as George Rousseau reveals, was described in his own time as a *lusus naturae*.

Blumenberg's history of curiosity offers a cogent narrative dedicated to the eventual triumph of freed enquiry embedded in, amongst others, the writings and activities of early modern natural philosophers. However, a similarly influential account – Krzystof Pomian's *Collectioneurs*, amateurs et curieux (1987) – is located in a different set of practices and individuals. Pomian articulates

W. J. Bouwsma, 'Work on Blumenberg', *Journal of the History of Ideas*, 48, 2 (April–June 1987), 347–54, 347–8.

The virtuoso or curioso is a recurring figure throughout the history of early modern curiosity and wonder. In addition to the chapters by Bertucci, Preston, Marr and Rousseau in this volume, see W. E. Houghton Jr, 'The English Virtuoso in the Seventeenth Century' parts 1 and 2, Journal of the History of Ideas, 3, 1 (January 1942), 51–73; and 3, 2 (April 1942), 190–219; B. J. Shapiro and R. Frank Jr, English Scientific Virtuosi in the 16th and 17th centuries: Papers Read at a Clark Library Seminar, 5 February 1977 (Los Angeles, 1979). For virtuosi in countries other than England, see, for example, W. Eamon, Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture (Princeton, 1994); D. Freedberg, The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History (Chicago, 2002).

a 'culture of curiosity' amongst collectors, natural historians, alchemists and the like, claiming that collections and collecting practices are the principal manifestation of an 'age of curiosity'. For Pomian, the key site of early modern curiosity was the 'cabinet of curiosities' which, he claims, materially represented a period in between the theological strictures of the medieval Church and the epistemological tyranny of the Scientific Revolution.²⁶ He asserts (not uncontroversially) that collected objects, removed from economic circulation, become 'semiophores', that is 'objects which [are] of absolutely no use' but which, bearing meaning, represent the 'invisible'.²⁷ For Pomian, these 'semiophores' occupy a privileged position in the history of curiosity because they act as a bridge between *verba* and *res*: 'that of which we speak and that which we see, between the universe of discourse and the world of visual perception'.²⁸ 'Semiophores' are the mediators in (to borrow Nicole Jacques-Chaquin's phrase) early modern *espaces du savoir*.

The cabinets or *Kunst- und Wunderkammern* upon which Pomian's work hinges might be considered a visual counterpart to the lexical abundance of Minsheu's *Guide into Tongues*, quoted above. Scholarship on the *Wunderkammer* developed out of the long art historical tradition of the history of collecting and provenance research which, however, largely ignored the 'philosophical bonds' between early modern collections, particularly their relevance to the history of enquiry. Moreover, until comparatively recently most work on the history of collections ignored wondrous *naturalia* and *artificialia* in favour of painting and sculpture. An early exception to this is the classic study by Julius von Schlosser, *Die Kunst-und Wunderkammern der Spätrenaissance* (1908). The influence of Schlosser's pioneering study is evident above all in the columns of the *Jahrbuch der kunsthistorischen Sammlungen in Wien*, a journal much regarded over the years. It is also apparent in the revival of interest in collections that

Pomian's 'age of curiosity' is characterised by diversity, encompassing a heterogeneous variety of behaviours and individuals: 'heretics in search of religious novelties ... astrologers, alchemists, hermetists, magicians ... those who are looking for other people's secrets,' virtuosi and antiquarians. K. Pomian, 'Curiosity and Modern Science' in N. Gomez (ed.), Nouvelles Curiosités/New Curiosities (Digne-les-Beins, 2003), 5–26, 16.

²⁷ There are, it seems, counter-examples to Pomian's claim that objects in the cabinet entirely lost their 'usefulness'. The *Kunstkammer* of Albrecht V of Saxony, for instance, contained a large number of tools which, far from acting as immobile signs, were regularly used in metalwork, wireturning and similar activities. See H. Watanabe-O'Kelly, *Court Culture in Dresden: From Renaissance to Baroque* (Basingstoke, 2002). I am grateful to Helen Watanabe-O'Kelly for allowing me to see a pre-publication copy of this book. The literature on 'prince-practitioners' also offers some useful counterpoints to Pomian's 'semiophore' paradigm. See, for example, B. T. Moran, *The Alchemical World of the German Court: Occult Philosophy and Chemical Medicine in the Circle of Moritz of Hessen* (1572–1632) (Stuttgart, 1991) and B. T. Moran (ed.), *Patronage and Institutions: Science, Technology, and Medicine at the European Court,* 1500–1750 (Woodbridge, 1991); S. Butters, *The Triumph of Vulcan: Sculptors' Tools, Porphyry and the Prince in Ducal Florence,* 2 vols (Florence, 1996).

Pomian, Collectors, 26. For a neat summary of Pomian's 'semiophores' and their place in the history of early modern collecting, see P. Smith and P. Findlen (eds), Merchants and Marvels: Commerce, Science and Art in Early Modern Europe (New York and London, 2002), 4–5.

went with central-European writing on Mannerism in the 1960s–70s, such as the work of Arnold Hauser and Franzsepp Wuertenberger, and of Elisabeth Scheicher and others specifically on *Kunst- und Wunderkammern*. Furthermore, it should be noted that Oliver Impey and Arthur MacGregor's important edited volume, *The Origins of Museums* (1981), which (alongside Pomian's *Collectionneurs*) may be credited with stimulating much of the recent surge of interest in collections and collecting practices (particularly work on the history of natural history and taxonomy), has done much to transform the history of the *Wunderkammer* into a flourishing scholarly industry in its own right.²⁹

Indeed, the *Wunderkammer* is the emblem *par excellence* of early modern curiosity and wonder.³⁰ Many of the themes discussed in this volume are depicted, in one form or another, in early modern 'pictures of cabinets' – a predominately Flemish genre of painting fashionable for a brief spell in the first half of the seventeenth century.³¹ In works such as the anonymous

Another important influence has been Michel Foucault's Les mots et les choses: une archéologie des sciences humaines (Paris, 1966). Recent work on natural history collections and taxonomy includes K. M. Reeds, Botany in Medieval and Renaissance Universities (New York and London, 1981); G. Olmi, L'inventario del mondo. Catalogazione della natura e luoghi del sapere nella prima età moderna (Bologna, 1992); P. Findlen, Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy (Berkeley and London, 1994); B. W. Ogilvie, 'Observation and Experience in Early Modern Natural History', Ph.D. diss. (Chicago, 1997); C. Swan, 'From Blowfish to Flower Still Life Paintings: Classification and Its Images, circa 1600' in Smith and Findlen, Merchants and Marvels, 109–36; D. Freedberg, Eye of the Lynx. There is also a growing literature on natural history and the history of the printed book in early modern Europe. See, for example, C. Fahy, Printing a Book at Verona in 1622, the Account Book of Francesco Calzolari Junior (Paris, 1993); S. Kusukawa, 'Illustrating Nature' in Frasca-Spada and Jardine (eds), Books and the Sciences in History, 90–113; L. Pinon with J.-M. Chatelain, 'Genres et figures d'illustration' in H.-J. Martin (ed.), Mise en page et mise en texte du livre imprimé (Paris, 2000), 234–69.

The literature on the subject is vast and growing. See, for example, A. Lugli, Naturalia et mirabilia: il collezionismo enciclopedico nelle Wunderkammern d'Europa (Milan, 1983); Pomian, Collectors; J. Kenseth, The Age of the Marvelous (Hanover, NH, 1991); K. Arnold, 'Cabinets for the Curious: Practising Science in Early Modern English Museums', Ph.D. diss. (Princeton, 1992); E. Bergvelt, D. J. Meijers, M. Reijnders (eds), Verzamelen. Van Rariteitenkabinet tot Kunstmuseum, (Heerlen, 1993); T. Da Costa-Kauffman, The Mastery of Nature: Aspects of Art, Science, and Humanism in the Renaissance (Princeton, 1993); S. Bann, Under the Sign: John Bargrave as Collector, Traveler, and Witness (Ann Arbor, 1994); A. Grote (ed.), Macrocosmos in Microcosmo: die Welt in der Stube, zur Geschichte des Sammelns, 1450 bis 1800 (Berlin, 1994); Wunderkammer des Abendlandes: Museum und Sammlung in Spiegel der Zeit (Bonn, 1994); H. Bredekamp, The Lure of Antiquity and the Cult of the Machine, trans. A. Brown (Princeton, 1995); P. Parshall, 'Art and Curiosity in Northern Europe', Word and Image, 11, 4 (October–December 1995), 327–31; Daston and Park, Wonders, especially ch. 7; T. J. Müller-Bahlke, Die Wunderkammer: Die Kunst- und Naturalienkammer der Franeschen Stiftungen zu Hall (Saale) (1998); Smith and Findlen, Merchants and Marvels.

On 'pictures of cabinets', which should be distinguished from the well-known engraved representations of early modern collections, see Alexander Marr's essay in this volume. Much work remains to be done on these images, but in general see S. Speth-Holterhoff, *Les peintres flamands de cabinets d'amateurs au 17e siècle* (Brussels, 1957); M. Winner, 'Die Quellen der Pictura-Allegorien in gemalte Bildergalerien des 17. Jahrhunderts zu Antwerpen', unpublished diss. (Cologne, 1957); S. Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century* (London, 1983); Z. Filipczak, *Picturing Art in Antwerp* 1550–1700 (Princeton, 1987), esp. 47–163; U. Härting, *Frans Francken II: Die Gemälde* (Freren, 1989); Pomian, *Collectors*, 49–53.

Cognoscenti in a Room Hung with Pictures (c.1620, Fig. 1.2) we find artificalia and naturalia juxtaposed; the virtuoso's delight in sensual abundance as he contemplates what appears to be an 'allegory of the senses' (in the manner of Jan Breughel I); the sustained scrutiny of curious enquiry;32 the love of peregrination, expressed by the cosmographers poring over maps and charts, and so on. 'Pictures of cabinets' tended to emphasise the paragone between art and nature (a persistent theme of early modern collections), represented in this example (as in many others) by the 'ape of nature' perched on the windowsill, mediating between the macrocosmic world of nature (glimpsed through the open window) and the microcosm of the cabinet.³³ Pictorially, the 'ape of nature' theme present in many 'pictures of cabinets' may well derive from the tradition of depicting St Eloy in his workshop, which can be traced at least to the mid-fifteenth century. An engraving attributed to the Master of Balaam, dated c.1440–50 and now in the Rijksmuseum (Fig. 1.3), shows the patron saint of goldsmiths in a workshop, surrounded by artisans and tools, accompanied by the 'ape of nature' at a window – a composition strikingly similar to the National Gallery's Cognoscenti. The similarity between these images points to a certain fluidity between the world of artisanal work and the collector's cabinet in the Renaissance, to which we shall return presently.

The relationship of art to nature, particularly pertaining to cabinets or collections, is a theme taken up by several of the essays in this volume. Alexander Marr, for example, discusses early modern automata – devices exemplifying the blurred boundaries between the natural and the artificial in the Renaissance³⁴ – while Peter Forshaw, in a detailed exposition of Heinrich Khunrath's celebrated *Amphitheatrum sapientiae Aeternae* (1609), shows how a collection of wonder-working wisdom could unlock the secrets of the micro-

³² If these 'pictures of cabinets' can be said to reflect, to some degree, what actually went on in the early modern cabinet (though given their *capriccio*-like nature we should be cautious in assuming that they do), it may be that the 'sustained scrutiny' evident in many of these images offers exceptions to Daston and Park's association of the *Wunderkammer* exclusively with astonishment and the antithesis of 'scientific curiosity'. Daston and Park, *Wonders*, 273–6. See also L. Daston, 'Curiosity and Early Modern Science', *Word and Image*, 11, 4 (October–December 1995), 391–404. On problems in interpreting 'pictures of cabinets', see, esp., Filipczak, *Picturing Art in Antwerp*, passim.

On the cabinet as microcosm see Adriana Turpin's chapter in this volume. See also, for example, Pomian, *Collectors*, 69–78; J. Kenseth, 'A World of Wonders in One Closet Shut' in Kenseth, *Age of the Marvelous*, 80–101; Findlen, *Possessing Nature*; Grote, *Macrocosmos in Microcosmo*.

³⁴ On the *paragone* between art and nature, see, for example, P. Findlen, 'Jokes of Nature and Jokes of Knowledge: The Playfulness of Scientific Discourse in Early Modern Europe', *Renaissance Quarterly*, 43 (1990), 292–331; M. Kemp, 'Wrought by No Artist's Hand: The Natural, the Artificial, the Exotic and the Scientific in some Artefacts from the Renaissance' in C. Farago (ed.), *Reframing the Renaissance* (New Haven and London, 1995), 177–96; A. Grafton and N. Siraisi (eds), *Natural Particulars: Nature and the Disciplines in Renaissance Europe* (Cambridge, MA and London, 1999); Smith and Findlen, *Merchants and Marvels*, especially chs 1, 2 and 13.



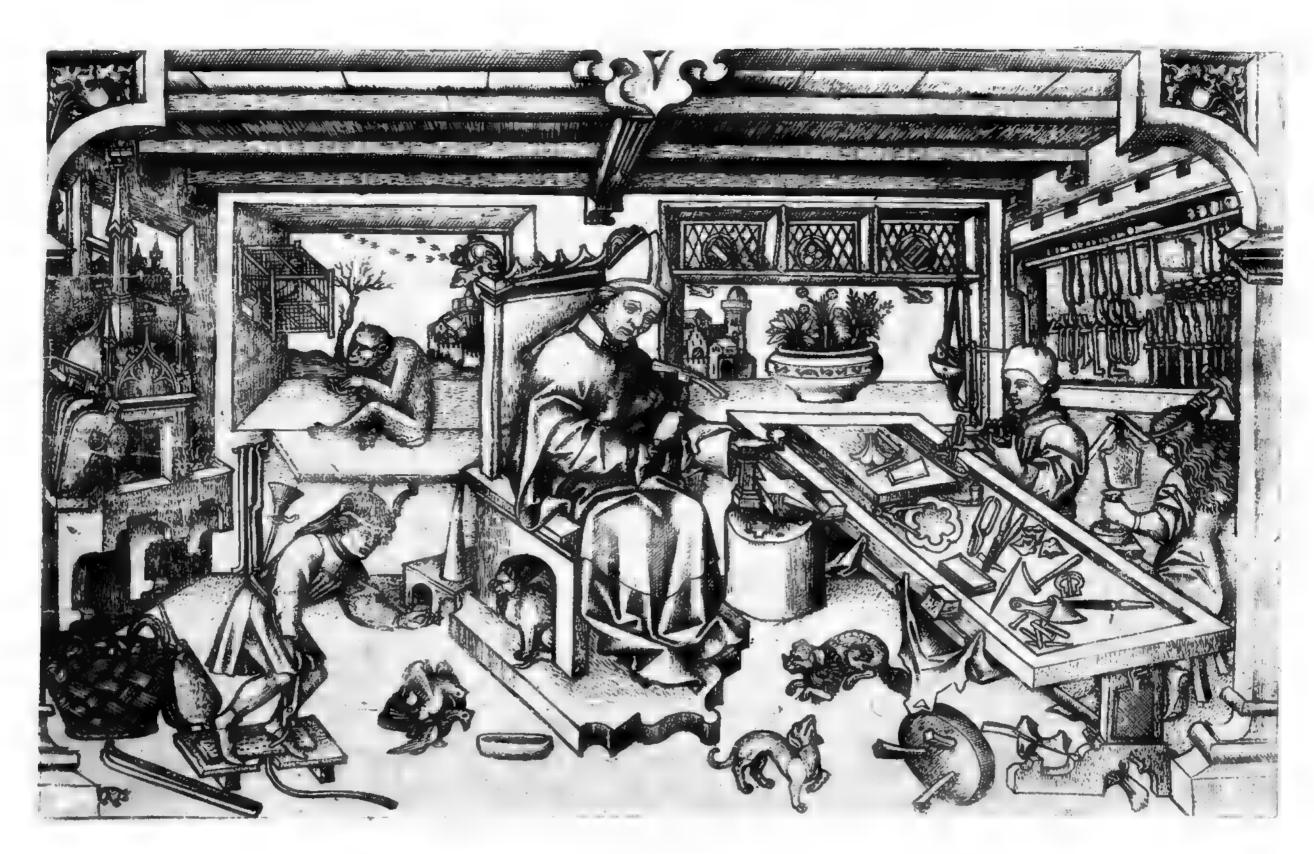


Flemish School, *Cognoscenti in a Room Hung with Pictures* (c.1620), National Gallery, London.

and macrocosm. Claire Preston, meanwhile, shoes how the cabinet or arts and wonders became, in the late seventeenth century, an object of ridicule and (for Sir Thomas Browne at least) a melancholy and distressing reminder of loss.

Returning now to historiographical concerns, it should be noted that Pomian (perhaps the greatest champion of the importance of collections for the history of curiosity) was well aware of the limits of his particular approach to the study of curiosity, explaining in the essay 'The Age of Curiosity' that his 'modest offering by no means deserves to be called a history of curiosity. This history still needs to be told.'35 In a 1993 lecture (published in 2003 as 'Curiosity and Modern Science') Pomian voiced his disagreement with Blumenberg's narrative history of curiosity, rejecting the 'very idea that there is something like a "theoretical curiosity" as a historically invariant entity', a sentiment

³⁵ Pomian, Collectors, 60.



1.3 Master of Balaam (attrib.), *St Eloy in his Workshop* (*c*.1440–50), Rijksmuseum, Amsterdam.

shared by several of the authors in this volume.³⁶ For Pomian, Blumenberg's approach is only sustainable if such a thing as knowledge is considered to be completely independent of its social, intellectual and cultural contexts. The history of changing meanings of *curiosité* sketched by Pomian (purposely limited to French sources so as to avoid 'shaky conclusions dependent upon superficial similarities') differs from Blumenberg's in that it seeks to study not 'ideas' as entities but 'behaviours'.37 For Pomian, the history of curiosity is that of cognitive behaviour (not entirely dissimilar to Daston and Park's 'cognitive passion' of wonder), the desire to learn or know, embedded in geographically and historically specific socio-cultural environments. As such, Pomian clearly distinguishes between curiosity directed or prohibited by Christianity up to the middle of the fourteenth century and curiosity as 'useful knowledge', which he associates with science of the late seventeenth century onwards. In between these manifestations of the 'desire to know' is a period of energetically diverse curiosity (expressed through collecting habits, types of enquiry, devotional practices and so on), the 'limits' of which differ from place to place.

³⁶ Pomian, 'Curiosity and Modern Science', 14. See especially the chapters by Kenny, Marr and Rousseau in this volume for reactions to Blumenberg's narrative.

³⁷ Pomian, 'Curiosity and Modern Science', 6.

Pomian's call for a history of curiosity predicated on local conditions is a useful antidote to Blumenberg's narrative, but it does not go nearly far enough. Despite his rejection of curiosity as a free-floating idea, Pomian's reluctance to delve deeply into the linguistic complexities of the group of words denoting curiosity in early modern Europe leads him inevitably to an extra-linguistic concept, even if that concept is situated within a particular place and time.³⁸ By way of contrast, Neil Kenny's approach to the study of curiosity, as noted in his contribution to this volume, is to focus on 'its ordinary language rather than trying to tidy it up into a "concept". For Kenny, both Blumenberg's 'metanarrative' of the rehabilitation of curiosity from vice to virtue and Pomian's 'culture of curiosity', focused on collectors and collections, sideline important early modern meanings of curiosity.

Kenny has undertaken much important work to draw attention to the various possible narratives of curiosity.³⁹ His *Curiosity in Early Modern Europe: Word Histories* is an essential guide through the labyrinthine complexities of the 'curiosity' family of terms, underpinning many of the discussions in this book. In his contribution to this volume Kenny expands upon his earlier work to propose a number of co-existent early modern 'discursive tendencies' that accompanied this lexical family, related either to collecting or narrating. Rather than privileging a particular tendency in this history of curiosity, he suggests that we should instead respect the 'revision and contestation' to which the early modern shaping of curiosity was continually subjected.

This 'revision and contestation' is particularly evident in Lorraine Daston and Katherine Park's wide-ranging study *Wonders and the Order of Nature*, in which curiosity's twin passion – wonder – is described as 'shifting its contents and its meaning in innumerable ways'.⁴⁰ Daston and Park are rightly suspicious of grand narratives, preferring to approach wonder (and to a lesser extent curiosity) as a set of 'sensibilities that overlapped and recurred'.⁴¹ Theirs is a major achievement, now the starting point for any serious consideration of wonder from the Middle Ages to the Enlightenment.⁴² Recasting the assumptions of their influential 1981 article 'Unnatural Conceptions', that took monsters from prodigies to wonders to naturalised objects, they elaborate the ways in which the passion of wonder, alongside wondrous objects, emerged and eventually declined as a marker of élite culture. Their study carefully

Pomian does, though, devote some space to the terminology of curiosity and the curious individual in *Collectors* (53–6), noting the proximity of 'curieux' to 'amateur'.

³⁹ See, in particular, Curiosity in Early Modern Europe, 44–9, esp. n. 81.

⁴⁰ Daston and Park, Wonders, 17.

⁴¹ Daston and Park, Wonders, 11.

⁴² It is not possible to do justice to the breadth and intricacy of such a wide-ranging work in this brief introduction. For greater elaboration on the contents and arguments of *Wonders and the Order of Nature*, see, for example, the reviews by Anthony Grafton and John Sutton in, respectively, *New York Review of Books*, 45 and *Times Literary Supplement*, 5001.

scrutinises how the history of wonder intersects with many important themes of medieval and early modern European historiography, such as the development of institutions and international trade, the Scientific Revolution and the Age of Exploration.

Daston and Park's work points to many areas in the history of curiosity and wonder that demand further scrutiny, some of which are taken up by the essays in this volume. Indeed, many of the assertions in Wonders and the Order of Nature loom large throughout this book. For example, the argument that in the sixteenth and seventeenth centuries the traditionally remote passions of wonder and curiosity moved closer together, becoming sinuously entwined throughout many discourses, practices and individuals, informs the chronological focus of several of the essays gathered here. Daston and Park seem to perceive in this period of particularly robust and fruitful interaction between curiosity and wonder, something akin to Pomian's 'age of curiosity' – a fecund period in which fledgling disciplines, wondrous objects and curious individuals intermingled before settling down into regulated professions and clear methods of enquiry.⁴³

Like the work of Pomian and Blumenberg, Daston and Park's work poses some important methodological questions. Despite strenuous arguments against the grand narratives of their historiographical predecessors, their focus on élites prompts a history with a strong narrative element, a narrative ruptured by the decline of wonders as 'cherished elements of élite culture'. As their introduction asserts, 'When marvels themselves became vulgar, an epoch had closed.'44 Élites are, without doubt, a sensible and fruitful place to look in order to explore early modern curiosity and wonder. Indeed, many of the essays in this volume are concerned with this type of individual and practice. But an exclusive concentration on élites obscures a host of actors, such as artisans and merchants, who played a vital role in shaping not only curious objects but also curiousness, and wonder as a passion of enquiry. While briefly acknowledging that early modern marvels circulated freely between 'the élite contexts of university, court, and academy, but also between these

⁴³ For Blumenberg also the turn of the seventeenth century was a key period for the transformation of curiosity, a period in which 'theoretical curiosity gains typification, definition as a figure, wealth of gesture' (Blumenberg, 'Trial', 381). For Blumenberg, the 'figure' of early modern curiosity is Faust, a 'bearer of its transformations and of the progress of its vindication'. The association of the quest for dangerous knowledge with Faustian curiosity continued at least to the nineteenth century. See J. Beer, Romantic Consciousness: Blake to Mary Shelley (Basingstoke, 2003), 172.

⁴⁴ Daston and Park, Wonders, 19. It is notable, though not surprising, that the most prominent actors in their narrative charting the rehabilitation of wonder alongside curiosity in the seventeenth century are, like Blumenberg's, 'heroes' of science, largely drawn from the Royal Society or the Académie Royale des Sciences (Wonders, esp. ch. 8.). Daston and Park distance themselves from Blumenberg, however, by shifting focus away from the 'triumph of rationality' to the 'self-definition of intellectuals' (18).

locales and more public and popular discourses', they do not examine the extensive, significant implications of such exchanges.⁴⁵ If, as Daston and Park suggest, one of the key shifts in early modern curiosity is from lust to greed, it is vital to attend not only to the consumption of marvellous commodities, the trade in which constituted an oft-traversed bridge between 'élite' and 'popular' domains, but also to the makers and retailers of such commodities – craftsmen, apothecaries, booksellers, market hawkers, entrepreneurs and itinerant traders.

More work needs to be done on the ways in which, in the context of curiosity and wonder, 'élite' and 'popular' locales overlapped - through patronage networks, printed books, object-exchanges, the education of the nobility by middle-ranking practitioners, and so on. This work is already underway and a number of important recent studies have begun to break down the persistent polarisation between the élite and the popular peddled by many historians of curiosity and wonder.46 Notable amongst these revisionist works are Pamela Smith and Paula Findlen's Merchants and Marvels, a volume that re-introduces craftsmen and commerce into the history of the marvellous in early modern Europe. Their collection of essays expands upon the connections between capitalism and the rise of science, suggested by Max Weber and Robert K. Merton, by assessing the activities of 'a new group of people, practitioners, drawn from all social strata'.⁴⁷ In the present volume, contributions by Deborah Harkness and Alexander Marr assess various ways in which non-élite actors shaped early modern curiosity and wonder – Marr through late Renaissance manufacturers of automata, Harkness through a discussion of the health concerns of early modern patients (from varied social backgrounds) and their therapeutic regimes. At the very least, studying the history of curiosity and wonder from the point of view of middle-ranking individuals (hovering somewhere in between the élite and the popular) questions the assumption that privileged access to marvels constituted a supremely important separation of the élite from the common or vulgar and, for example, that this separation represents a decisive break between wonder and Enlightenment.

Wonder (and certainly curiosity), as Daston and Park acknowledge, persisted in intellectual circles well into the eighteenth century, albeit in different guises to those in which they had previously appeared. The traditional view that the

⁴⁵ Daston and Park, Wonders.

In a recent study of early modern prodigies, Burns has observed that students of marvels can be divided into two groups: 'The first are by those primarily interested in popular culture, such as Niccoli and Friedman, who see providential prodigy belief, along with other beliefs such as that in ancient prophecy, as characteristic of ordinary people in early modern Europe. The second are by those interested in the relation of the prodigious to the development of early modern natural philosophy, such as Céard, Park and Daston.' W. E. Burns, *An Age of Wonders: Prodigies, Politics and Providence in England 1657–1727* (Manchester, 2002), 6.

⁴⁷ Smith and Findlen, Merchants and Marvels, 16.

'new science' of the late seventeenth century rationally ejected marvels from the canon of respectable intellectual endeavour has been dissected at length in Wonders and the Order of Nature and need not be repeated here.⁴⁸ The alternative to the standard account has suggested that emerging sensibilities, such as the fantastic imagination, nostalgia and exoticism, shaped and were shaped by the changing modes of eighteenth-century curiosity and wonder.⁴⁹ Work by Benedict and Campbell, in particular, has explored how curiosity and wonder relate to the many facets of imagination up to the nineteenth century.⁵⁰ In fact, although most studies of curiosity end in the early decades of the nineteenth century (Benedict, for example, takes her account up to 1820), it is by no means clear that either disappeared from élite culture at that time, though both had undergone radical changes in scope and meaning. The revival of interest in occult science and esotericism in the second half of the nineteenth century, evident in periodicals such as the Revue Wagnérienne or Le lotus bleu, testifies to élites' continuing engagement with traditional subjects of curiosity, though this was certainly not the sneering approach to arcane knowledge favoured by the 'rational' intellect of Enlightenment. Indeed, one of the most pressing challenges currently facing historians of curiosity and wonder is to track the trajectories of these themes through the end of the eighteenth century into the nineteenth and twentieth centuries.

Nigel Leask has recently shown that a focus on travel writing offers a particularly rewarding way to explore the changing shapes of curiosity in the late eighteenth and early nineteenth century. In his outline of the 'aesthetics of curiosity', discussed in George Rousseau's contribution to this volume, Leask subtly articulates how travel writing in the (broadly defined) Romantic age intersected with some of the staple themes of early modern wonder, demonstrating how these accounts helped shape a range of differing sensibilities: consumerism, exoticism, antiquarianism, and so on.⁵¹ Travel, alongside exploration and, in particular, the European encounter with the New World from the late fifteenth century onwards, has played an important role in shaping how the majority of historians have approached the themes of this volume. As Stephen Greenblatt observes in his influential book *Marvelous Possessions*: 'Columbus's voyage initiated a century of intense wonder.'⁵²

⁴⁸ See Daston and Park, ch. 8, esp. 329–31.

⁴⁹ See, esp., Leask, *Curiosity and the Aesthetics of Travel Writing*, including the useful bibliography; M. Bravo, 'Precision and Curiosity in Scientific Travel: James Rennell and the Orientalist Geography of the New Imperial Age (1760–1830)' in J. Elsner and J.-P. Rubiés (eds), *Voyages and Visions: Towards a Cultural History of Travel* (London, 1999); Benedict, *Curiosity*.

⁵⁰ See Benedict, Curiosity, and Campbell, Wonder and Science.

⁵¹ Leask, Curiosity and the Aesthetics of Travel Writing, esp. ch. 1, 15–43.

⁵² S. Greenblatt, *Marvelous Possessions*, 14. The work on this subject, strongly influenced by the work of Michel de Certeau, Walter Benjamin and Frank Lestringant's studies of sixteenth-century French travellers, occupies a prominent place in the scholarly literature on curiosity and wonder. See, for example, M. de Certeau, 'Ethno-Graphy: Speech, or the Space of the Other: Jean de Léry' in

Greenblatt's work, in particular, is a landmark in the historiography of wonder, charting the terrain for the study of this concept from the Renaissance to the Enlightenment: 'What does it mean to experience wonder? What are its origins, its uses, and its limits? Is it closer to pleasure or pain, longing or horror? Is it a sign and an agent of renunciation or possession?'⁵³ The prominence of travel and exploration in several of the contributions to this book, including the essays by Wes Williams (on danger and curiosity in sixteenth-century French travel narratives) and Paola Bertucci (on Nollet's Italian tour), attests to *Marvelous Possessions*' continuing currency and influence on the history of curiosity and wonder.

Another potentially rich area for future study that may help to map some of the changes that curiosity and wonder underwent in the eighteenth and nineteenth centuries is the relationship between curiosity, wonder and 'enthusiasm' – a relationship that can be traced at least to the seventeenth century. The trajectory of enthusiasm, which has its own rich historiography, seems to share a number of similarities to those of the topics addressed in this volume.⁵⁴ Like curiosity and wonder, the history of enthusiasm can be traced back to antiquity, it was vigorously debated in the early modern period, and is now a 'mild and innocuous word'.⁵⁵

At the heart of the relationship between curiosity, wonder and enthusiasm lies the challenge to established authority, both religious and secular, by those individuals and groups claiming direct, divine inspiration. As Stephen Clucas shows in his contribution to this volume, curiosity (particularly pertaining to occult philosophy and magic) and religious enthusiasm (especially the kind stimulated by radical Protestantism) were closely intertwined. Through

The Writing of History, trans. T. Conley (New York, 1988), 209–43; W. Benjamin, Illuminations, trans. H. Zohl (New York, 1969); F. Lestringant, André Thevet: Cosmographe des derniers Valois (Geneva, 1991); M. B. Campbell, The Witness and the Other World: Exotic European Travel Writing, 400–1600 (Ithaca, NY and London, 1988); A. Pagden, European Encounters with the New World, from Renaissance to Romanticism (New Haven and London, 1993); W. Williams, Pilgrimage and Narrative in the French Renaissance: 'The Undiscovered Country' (Oxford, 1998).

- 53 Greenblatt, Marvelous Possessions, 14. The continuing relevance of these questions to the ongoing study of wonder was recently highlighted by the reprinting of Greenblatt's introduction to Marvelous Possessions in Platt, Wonders.
- J. Mee offers a useful introduction to the recent scholarship on enthusiasm in *Romanticism*, *Enthusiasm and Regulation: Poetics and the Policing of Culture in the Romantic Period* (Oxford, 2003), 1–19. See also M. Heyd, 'Be sober and Reasonable': The Critique of Enthusiasm in the Seventeenth and Early Eighteenth Centuries (Leiden and New York, 1995) and 'The Reaction to Enthusiasm in the Seventeenth Century: Towards an Integrative Approach', Journal of Modern History, 53 (1981), 258–80; L. E. Klein and A. J. de la Volpa (eds), Enthusiasm and Enlightenment in Europe, 1650–1850, special issue of Huntingdon Library Quarterly, 60, 1–2 (1998).
- 55 Klein and de la Volpa, 'Introduction' to *Enthusiasm and Enlightenment in Europe*, 1–5, 1. Daston and Park touch on enthusiasm in *Wonders*, 334–7. Notably, while Daston and Park's account of the decline of wonder in the eighteenth century (ch. 9) is entitled 'The Enlightenment and the Anti-Marvellous', J. G. A. Pocock's important study of enthusiasm in the same period is called 'Enthusiasm: The Anti-Self of Enlightenment', *Huntingdon Library Quarterly*, 60, 1–2 (1998), 7–28.

a careful reading of Meric Casaubon's preface to his edition of the 'angelic conversations' of John Dee and Edward Kelley, alongside Casaubon's writings on 'credulity', 'incredulity' and enthusiasm, Clucas offers a nuanced account of the complex motivations behind mid-seventeenth-century attacks on this particular type of 'damnable curiosity'. The concern of writers such as Casaubon was that the credulous public, ignorant of natural causes, could be stirred to 'Madnesse and deliration' through false wonders and prodigies, shattering the 'peace of Common-weales'. The potentially destabilising effect of enthusiasm was clearly one avenue through which debates surrounding curiosity and wonder were perceived as relevant to the public, as well as the private, sphere.

Indeed, it seems that to some degree the frenetic anxiety and activity surrounding curiosity and wonder in the seventeenth century shifted increasingly to concerns over enthusiasm in the second half of the eighteenth century. As Jon Mee's work on radicalism and Romanticism has shown, a number of late eighteenth- and early nineteenth-century writers tried to separate out the various conflicting aspects of enthusiasm in a manner similar to earlier attempts to distinguish 'good' from 'bad' types of curiosity and wonder.⁵⁶ Coleridge, for example, attempted to desynonymise enthusiasm from fanaticism just as sixteenth-century professors of secrets tried to distinguish between their own brand of legitimate 'natural' magic and dangerous 'demonic' magic, or early eighteenth-century natural philosophers attempted to 'decouple wonder and fear'.⁵⁷ This shift of focus towards enthusiasm was at least one of the factors that unfettered curiosity and wonder from their troubled past, both manifesting, in revived forms, in Romantic aesthetics (notably the Sublime) and fiction, in particular Gothic.

In his epilogue to this volume George Rousseau suggests that one way in which the 'bifurcation' of curiosity and wonder in the eighteenth century can be extended into the nineteenth and twentieth centuries is to expand the frame of reference 'from objects to selves and then, from selves to mankind in general'. Curiosity's 'pathway in the nineteenth century', Rousseau writes, continued to be preoccupied with things but was 'now equally embedded in *persons*'. This focus on selves may well yield rich results, such as placing the emergent practices of psychology and pschoanalysis in a longer tradition of fascination.⁵⁸ Much work remains to be done on the topics addressed here. This volume does not seek to offer a final word on the history of curiosity and

⁵⁶ See Mee, Romanticism, Enthusiasm and Regulation.

⁵⁷ Daston and Park, Wonders, 336. On Coleridge and enthusiasm, see Mee, Romanticism, Enthusiasm and Regulation, 132–72.

This process is already underway. See, for example, H. Small and T. Tate (eds), *Literature*, *Science*, *Psychoanalysis* 1830–1970 (Oxford, 2003). See, esp., 'Introduction', 1–4.

wonder, especially as each continues to have a strong impact on contemporary life.⁵⁹ Rather, it aims to provide new insights and pose new questions about topics that remain, for all their changes in shape and meaning, of vital importance to intellectual, social and cultural history.

⁵⁹ See, for example, Daston and Park, Wonders, 365–8.

'Out of the frying pan ...': Curiosity, danger and the poetics of witness in the Renaissance traveller's tale

Wes Williams

Prologue: 'les aventures des gens curieux'

Death is the sanction of everything that the story-teller can tell. He has borrowed his authority from death. In other words, it is natural history to which his stories refer back.

Walter Benjamin, 'The Storyteller'

Two men catch sight of each other on an early modern road just outside Paris. The one is in company. A young Prince on a study tour of French universities, he is 'discoursing and philosophating' with his tutors, fellow students and hangers-on. The other, barely visible in the distance, is alone. He looks, the narrator tells us, for all the world like he has been running for his life, like he has just escaped from a pack of dogs intent on eating him alive. The Prince, on reading the physical signs, knows they will be friends for life. The other, approaching, gambles on the Prince recognising one of Walter Benjamin's storytellers when he sees one: a man who can conjure with death. A fabulist, he can do danger, wonder and survival in all manner of languages and voices. In response to the classical questions of epic - who are you, where are you from, and so on - he speaks thirteen different languages, in sequence, before condescending to French, and to a tale of having been captured by the Turk at Mytilene, wrapped in bacon, and roasted on the spit. Confirming the narrator's initial hunch, the tale concludes with our hero's having escaped kebabbing of the kind imaged in Sebastian Münster's Cosmographia (Figs 2.1 & 2.2), only to be chased by that ravenous pack of dogs. He is, he says, a 'lover of peregrinity'; his story is that of one whose 'too much curiosity has thrown him upon adventures.'1

¹ F. Rabelais, Pantagruel, ch. IX, in Oeuvres complètes, ed. M. Huchon (Paris, 1994), 246–50;

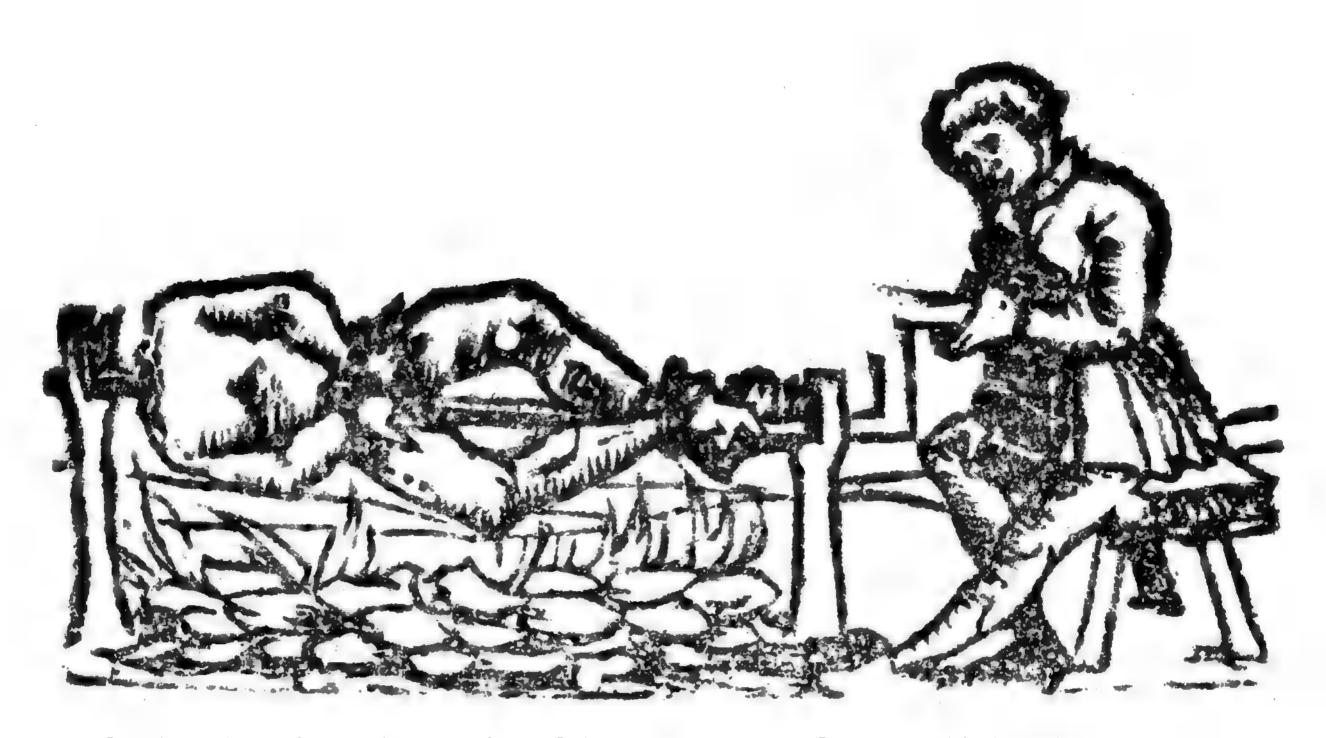


2.1 Scythian 'Leutfresser' image from Sebastian Münster, *Cosmographia* (1572), p. 1261. Reproduced by kind permission of the Provost, Fellows and Scholars of The Queen's College, Oxford.

Pantagruel catches sight of Panurge on the road, in the distance, and one of literature's least likely friendships, and most extraordinary travel narratives – first around France, through the many and strange forms of university learning, and then beyond, into the world of epic, the quest, religious polemic, ethical inquiry and romance – begins. A chance encounter on the road transforms a formal, institutional progress towards learning into a narrative of wandering, of error never quite redeemed, and of curiosity translated into character, into unresolved allegoresis, into plot.²

Gargantua and Pantagruel, trans. P. Le Motteux and T. Urquhart, ed. T. C. Cave (London, 2000), 198–202; I shall refer to translations where they exist; all other translations are mine.

² For recent accounts of this much-commented scene, see T. Cave, *Pré-histoires II: Langues étrangères et troubles économiques au XVIe siècle* (Geneva, 2001), 75–89; T. Conley, *The Self-Made Map:*



Scythian 'Leutfresser' image from Sebastian Münster, Cosmographia (1572), p. 1262. Reproduced by kind permission of the Provost, Fellows and Scholars of The Queen's College, Oxford.

Panurge's tale of himself as bacon-basted human kebab – one of the few instances in Rabelais where someone other than the narrator tells a story – is presented as a true-life account, and may well have seemed entirely credible to its early modern readers. Indeed, other early to mid-sixteenth-century travellers returned from wars due east, or from pilgrimage diverted into slavery, to tell similar tales of defeat in battle, of shipwreck, or of capture on the desert road; several bore witness to suffering endured sometimes for years. Many, most notable among them one Bartholomew Georgiewitz, turned their misfortune to profit, recounting, from the position of enforced privileged access, the inside story of Turkish customs at court, in the army, in the home and in the harem. Not that conflict, hostility and danger were the only figures in which the experience of early modern travel through Ottoman lands could be framed. There were in addition, especially in French and with thanks to the developing and carefully nurtured relations between French ambassadors and the Sublime Porte, a whole range of alternative discourses available to writers travelling to the Near East, including, amongst others, diplomacy, numismatics, manuscript- and book-collecting, botany, research

Cartographic Writing in Early Modern France (Minneapolis, 1996), 171-82; G. Defaux, Le Curieux, le glorieux et la sagesse du monde dans la première moitié du XVIe siècle: l'exemple de Panurge (Lexington, KY, 1982), 30-35; T. Hampton, Literature and Nation in the Sixteenth Century: Inventing Renaissance France (Ithaca, 2001), 35-65 and F. Lestringant, Cannibals: The Discovery and Representation of the Cannibal from Columbus to Jules Verne, trans. R. Morris (Cambridge, 1997), 23-7.

into animals and antiquities.3 And yet even in the natural histories of the new learning, the congruence of curiosity with danger recurs as something of a founding obsession, not to say neurosis; for as competing discourses of learned travel attempt to establish their rival claims on the reader's attention, so the figure of the witness emerges as guarantor of credibility in the field. Those hardy perennials of epic and pilgrim rhetoric, the tropes of curiosity turned to profitable ends, and of mortal danger endured, survived and recounted are, across the course of the early modern period, grafted together and transplanted into new, secular ground, where they will flourish for some long time. In attempting to grasp the force and shape of this process I shall, in what follows, first outline a number of arguments concerning the status of curiosity in relation to narratives of travel in the European Renaissance, before turning in some detail to the association of danger and authority in the work of two contrasting, and contestatory French writers – André Thevet and Jean de Léry. A brief conclusion will then return us to Panurge, to the frying pan, the grill, the smoke and the fire.

Curiosity and the laws of genre: 'une honeste curiosité de s'enquerir de toutes choses'

Mixing with men is wonderfully useful ... not merely to bring back, in the manner of our French noblemen, knowledge of the measurements of the Santa Rotunda, or the richness of Signora Livia's drawers, or how much longer or wider is Nero's face on some old ruin there than on some similar medallion ... but to rub and polish our brains by contact with those of others.

Montaigne, 'Of the Education of Children'

The embassy of Gabriel Aramon to Constantinople represents an important moment both in the history of French relations with the Ottoman court and in the development of the genres in which the experience of travel comes to be narrated in the vernacular. For the travellers whose texts make up what Frédéric Tinguely has termed the 'corpus aramontin' move beyond the borders

³ The literature on Franco-Turkish relations of the period is vast. Among the best studies are: M.-C. Gomez-Géraud, Le Crépuscule du Grand Voyage: Les récits des pèlerins à Jérusalem (1458–1612) (Paris, 2000); M. Heath, Crusading Commonplaces: La Noue, Lucinge and Rhetoric against the Turks (Geneva, 1986); C. Dana Rouillard, The Turk in French History, Thought and Culture (1520–1660) (Paris, 1940); F. Tinguely, L'Écriture du Levant à la Renaissance: Enquête sur les voyageurs français dans l'empire de Soliman le Magnifique (Geneva, 2000), and my Pilgrimage and Narrative in the French Renaissance: 'The Undiscovered Country' (Oxford, 1998).

of Christendom without making of that move either a pilgrimage or a crusade. In narrating their experiences and experiments, the writers patronised by or otherwise benefiting from Aramon's embassy established modes of enquiry into the natural world, which were not bound by the conventions of inherited sacred and generic forms; and they did so not due west, but when writing about that territory which lies at the heart of Christian and Islamic pilgrimage. True, some, such as Pierre Gilles and Nicolas de Nicolay, steered clear of Jerusalem itself: a topography of Constantinople, an account of the dissection of the ambassador's pet elephant, or the lavishly illustrated *Navigations, Peregrinations and Travels, made into the Land of Turkey* were wonders enough for their readers.⁴ Others, as we shall see, subjected themselves, in the search for singularities and the quenching of their curiosity, to generic and physical dangers still further afield.

One of the most influential French early modern writers to head east openly motivated by curiosity, and in search of wonders, Pierre Belon, told a story quite different from that either of pilgrims or of Panurge. His *Observations of Several Singularities and Memorable Things found in Greece, Asia, Judea, Egypt, Arabia and Other Foreign Countries* (Paris, 1553) abjures its kinship to pilgrimage, and in so doing confirms that Belon's project is to map a new, secular space for writing the East. To say you have been to Judea is quite different from saying you have worshipped in the Holy Land. Indeed, almost every word of his title – *observations, plusieurs, singularités, choses memorables,* lists of place names, some known, some *estranges* and still to be named – draws on that lexicon of fetish-objects which underscores the developing discourses of early modern wonder. For all that he travels along ancient pilgrim paths, Belon promises his readers not the unique experience of a glimpse of the sacred, but rather the purview of that 'wondrous variety of things' (2^r) which goes to make up the new world still waiting to be found due east.⁵

In time, others followed in Belon's generic footsteps on the eastern journey of discovery, much as pilgrims had followed in those of pilgrims before them. Among these one Jean Palerne spends a full year travelling in 1581–3, but only

⁴ See N. de Nicolay, Les Quatres premiers livres des navigations et peregrinations (Lyons, 1567) and P. Gilles, de Topographia Constantinopoleos, et de illius antiquitatibus (Lyons, 1561) and Descriptio nova Elephanti (Hamburg, 1614). There developed what has rightly been called 'toute une histoire' concerning Aramon's elephant. Brought back from Mesopotamia, it died of melancholy (or poison) in Aleppo, in the winter of 1549–50, and was dissected by Gilles, who was able to prove that, contrary to the opinion of Solinus and other ancients, elephants had joints in their knees. For more on the elephant, including other eye-witness accounts of the dissection, see A. Thevet, La Cosmographie de Levant, ed. F. Lestringant (Geneva, 1985), 71, and the excellent note, 275–6.

⁵ There is as yet no full-length study of Belon or his work; I have silently translated his title, as I have that of Palerne, below. For different senses of the contexts of non-pilgrim travels due east in this period, see P. Findlen, *Possessing Nature: Museums, Collecting and Scientific Culture in Early Modern Italy* (Berkeley, 1994), 155–93; M. B. Campbell, *The Witness and the Other World* (Ithaca, 1988), 15–161; S. Greenblatt, *Marvelous Possessions: The Wonder of the New World* (Oxford, 1991), 26–51.

a week in Jerusalem. He stays three times as long in Tripoli, almost three times as long again in Cairo and Alexandria and twice that (a full four months) in Constantinople. His travels, when narrated, become the *Peregrinations of Jean Palerne, Foresien, Secretary to Feu Monseigneur François de Valois, Duc d'Anjou, d'Alençon etc., Brother to Feu Henry III King of France and Poland, which treat of Several Singularities, and Antiquities noted in the Provinces of Egypt, Arabia both Desert and Stony, The Holy Land, Syria, Anatolia, Greece and Several Islands both of the Mediterranean Sea and of the Archipelago. With the customs of peoples ... (Lyons, 1606). The Holy Land is there this time, but to the 'several singularities' are added now 'several islands ... antiquities ... and customs.' Added, too, is a phrase book, one of the most comprehensive of the period, outlining how to ask for what you need, and how to respond to requests, in a range of situations, and in <i>French, Italian, Vulgar Greek, Turkish, Moresque, or Arabic, and Slavonic, Necessary to Those Desirous of Making the Journey*.

Palerne's text may – unlike that of Belon – echo the language of pilgrimage in its generic title, and admit of the Holy Land as one of its locations. But it has designs at some long remove from those of pilgrims who make the difficult crossing of the Alps at Mt Cenis, find passage to Jaffa in Venice, spend the usual three weeks in Palestine, talking to no-one but their priestly guides while they are there, and then begin the arduous journey home. The singular journey which is *peregrinatio* becomes an inflationary set of peregrinations in search of several singularities, islands, antiquities, customs ... and, in the manner of a Panurge, languages.

Palerne admits, like Panurge and Belon before him, to being 'curieux de voir le pays'; he acknowledges his motivation to have been Oriental sightseeing, 'even though these lands are fairly well frequented by the French these days' (4). Unlike Panurge, he has a fairly easy time of it on the journey. The preface, in its argument in favour of the worth of these 'Observations' to the stay-at-home reader, lists a long series of 'unspeakable travails' he has endured, invokes the 'incredible expense' his experience has cost him, and draws the readers' especial attention to his having been so 'disfavoured by fortune' as to be shipwrecked, twice (4–5). Yet, in the main body of narrative, the information Palerne trades in – whether concerning the manner in which eggs are incubated in Egypt (ch. 19), in which Moors make love (ch. 20), in which thieves in Tripoly are first crucified, then burned and finally skinned alive (ch. 80), or in which elephants in Constantinople are trained to perform executions by wielding scimitars with their trunks (ch. 120) – is rarely, if ever, bought at the cost of his own safety. He benefits, rather, from the connections of his rank; it seems that most people he meets are Pantagruels who see the noble in him, and treat him nobly. He himself is not impaled, nor roasted at the spit, nor does he find himself pursued by his own insults, by those dogs as if conjured into literal existence by the force of the curses he hurls at his captors. His curiosity is not, then, within the narrative itself, punished, but is, rather, indulged, as across a full one hundred and thirty-one short chapters, he observes all manner of difficulty, danger, cruelty and barbarism in others, without ever being subject to such suffering himself.

The 'indicibles travaux' of which Palerne speaks are not, for the traveller himself, 'trauailes'; the pun does not play reflexively in French as it does in English. As it does, for instance, and powerfully, in the Protestant English of Henry Timberlake, whose True and Strange Discourse of the Trauailes of Two English Pilgrimes advertises the admirable accidents [that] befell them alongside the rare Antiquities, Monuments and notable memories ... they sawe in Terra Sancta (London, 1603). Timberlake's discourse 'of no lesse admiration, then well worth the regarding' is a tale of danger and suffering not merely witnessed, observed, but survived. Written as a letter, composed in Jerusalem itself and then sent home to 'all you [his] deare friends', it stands as evidence that the questions raised here are in no sense specific to narratives written in French. Timberlake's is one of the first and most striking accounts of how English Protestantism made of pilgrimage a kind of negative progress, a journey whose credit was defined in opposition to Catholic superstition, and to other travellers' habitual and proverbial 'leasings'. His narrative derives its force not only from denial of the truth of others' claims to have observed this or that singular thing, but also – indeed especially – from the degree of danger endured by the traveller himself in course of his journey. Like the later, better known and more prolix William Lithgow, Timberlake trades not in singularities displayed in his text, but on the figure of the adamantly undaunted 'English Pilgrime', upholding the truth both of his Religion and his English identity.⁶

This will not be a discussion of English writers; nor, as we shall see, is the Protestant discourse of negative witness the exclusive property of English pilgrims. Indeed Montaigne, even as he famously advertises the worth of travel in essays such as 'Of the Education of Children', there arguing the importance of 'an honest curiosity to inquire into all things', also reacts against the errors and excesses contained in the many first-person accounts on the generic market. While Ronsard and a host of other poets queued up to offer praise to Thevet, France's most celebrated traveller-writer of the latter half of the sixteenth century, Montaigne is altogether more circumspect.⁷ Reading in the Royal Cosmographer and his kind only the signs of famously bad times, he notes that 'scribbling seems to be symptomatic of an unruly age. When did we

⁶ William Lithgow's Totall Discourse of the Rare Adventures & Painfull Peregrinations of Long Nineteene Yeares Travayles from Scotland to the Most Famous Kingdomes in Europe, Asia and Affrica (London, 1632) has been excerpted as part of Andrew Hadfield's recent anthology, Amazons, Savages & Machiavels: Travel & Colonial Writing in English, 1550–1630 (Oxford, 2002); Timberlake seems all but unknown by scholars in the field.

⁷ M. de Montaigne, Essais, eds A. Thibaudet and M. Rat (Paris, 1962), 155; The Complete Works, trans. D. Frame (London, 1957), 115.

write so much as since our dissensions [the Civil Wars] began? And when did the Romans write so much as just before their collapse?' ('Of Vanity', 722). The problem being at once discursive and social, so the remedy must consequently be both of the order of discourse and a matter for the police: 'The Law ought to impose restraints on inept and useless writers, as it does on vagabonds and loiterers. Then both myself and a hundred others would be banished from the hands of our people. I'm not joking' (721).

This is, in one of the oldest and most persistent of moral tropes, to equate writing with error, the writer – including himself – with the vagabond. In the essay 'Of Cannibals' Montaigne sharpens the contextual focus and makes the terms of the debate clearer still: 'What we need are topographers, who would each make a detailed and particular account [narration particulière] of the places they have actually been to.' With Thevet clearly in mind, he continues, grumbling, 'But because they have the advantage of having visited Palestine they imagine this means they enjoy the rights [jouir du privilège] to telling tales about the rest of the world' (152). The problem, as Montaigne recognises, is one of propriety both spatial and discursive; only those who can both demonstrate that they have close knowledge of the terrain which they cover, and recognise the need for narrative decorum should have the legal right to enjoy the benefits of ownership of their own discourse: 'jouir' and 'privilège' carry legal significance here and speak of the rights of the signature, the proper name authorising the account.

Montaigne's charge here is both a legal complaint concerning intellectual property in the new age of publishing, and a more old-fangled pilgrim's argument. His words echo a persistent pilgrim critique of the burgeoning trade in singularities, and the commodification of wonder of which it is both function and sign. As I have discussed in more detail elsewhere, early modern pilgrimage is a place governed by laws at once literal and discursive. The pilgrim laws against *evagatio mentis* and against first-person narratives regulate the circulation of sacred energy, which bear on the construction of the texts themselves, and maintain the force of the generic claims of pilgrimage – midway between devotional imitative exercise and personal record of lived experience. For such rhetorics of sacred presence to operate successfully, there must, as pilgrim writers across the period make increasingly clear, be clear bounds set to the territory which the text encompasses, and over which readers, like pilgrims before them, travel.⁸

For as the new discourses of travel developed over the century, gaining both territory and legitimacy, pilgrim writers found themselves returning with renewed attention to the problem of curiosity, forcefully renewing its

⁸ See my *Pilgrimage and Narrative*, 51–93; and, for further discussion of Montaigne, "Rubbing up Against Others": Montaigne on Pilgrimage' in J. Elsner and J.-P. Rubiés (eds) *Voyages and Visions: Towards a Cultural History of Travel* (London, 1999), 101–23.

ancient alliance with danger at once physical and spiritual. One of the most adamant of the narrative legislators of the Counter-Reform who sought to police pilgrim subjectivity, to order pilgrim narratives, and to assert their difference from those of secular travellers is one Henri de Castela, a priest from Toulouse. His guidebook on how to be a pilgrim, first published in 1604 as an accompaniment to his long account of his own Jerusalem pilgrimage undertaken in 1600, marks a defining moment in the history of Renaissance pilgrimage writing both in its relations to curiosity and to the new, secular forms of travel which were both becoming practically possible and, crucially, developing theoretical validity within Europe. Zwinger, Turler, Pyrckmaier and Lipsius were all training the young noblemen of the Protestant north in ways of seeing and being on the road which bore no stated relationship to pilgrimage. And even within Catholic France, the likes of Belon, Palerne and a host of others were detailing their visits to the East, and making of both Jerusalem and the pilgrim figure just another curious site. To counter this, Castela presents a compendium of pilgrim advice – gleaned from those of earlier writers in Greek, Latin, French and Italian, reaching as far back as Gregory of Nyssa, whose second letter on pilgrimage gave rise to furious and heated debate across the period – a last-gasp effort to lay exclusive, pilgrim, rights to the territory of travel. Montaigne's advice, like his praise of 'honest curiosity' can, Castela argues, only lead the traveller astray. The essence of being a pilgrim, as the priestly writer sees it, is *not* rubbing up against others: the pilgrim should always travel in the protection of guides, should never leave pilgrim company, never address locals, never be caught noting down observations in situ, for fear of being, as another pilgrim puts it, 'caressed as spies are caressed'.9

Addressing the traveller's motives, Castela urges the pilgrim to ensure that he is 'not driven by vain and vicious curiosity'. He (for it is always he) must ensure that he is aware that 'God does not inspire us to undertake the Holy Pilgrimage so that we can prattle and boast afterwards about having seen this or that rare or singular thing' (4^v). Unlike Palerne, Timberlake, Hault and other lay pilgrims, the priestly Castela does not give advice on how to hire translators; he is silent about where to get good fruit or what sort of things to say to people you might meet in a Jerusalem street. For him, such matters are not of pilgrim concern, and indeed can only increase the risk of pilgrims being consumed by the fires of desires they never even knew they had. At times, Castela is more specific still as to the dangers of curiosity: the pilgrim should 'not be curious to see the insolent acts and monkey business practised

⁹ N. de Hault, Le Voyage de Hierusalem (Chaumont en Bassigny, et se vendent a Paris, 1601), 1^r–2^v; H. de Castela, La Guide et adresse pour ceux qui veulent faire le S. Voyage de Hierusalem (Paris, 1604). For discussion of Zwinger, Turler, Lipsius, Gregory of Nyssa et al., see the references in n. 8 above.

by night at the parties and balls' given by the local residents of Jerusalem 'for fear of being induced or constrained to succumb to sodomy.' The only sure way to avoid the danger of losing one's way as a pilgrim is to maintain absolute difference from others - including other travellers; this is best achieved through indifference to all but the sacred features of the place and its people. To remain your Christian, holy self you must pretend to be someone you are not, someone radically unable to communicate with others outside the pilgrim group. For communication is pollution. It is a strategy as blunt as it is brutal: 'the best thing would be to counterfeit, when amongst others, the deaf, dumb and blind man' (60°). Castela's ideal pilgrim would, then, be a traveller without a body; the saintliness of the pilgrim resides not merely, nor even primarily, in his contact with sacred sites, as in his travelling to places of seduction, and there resisting what he sees, smells and hears. His heroism is a function of his having gone away to visit what Gregory of Nyssa had long since termed 'seats of contagion', and having returned fundamentally unchanged.

André Thevet: 'l'Auteur en danger de sa vie'

It is true that the ancients have written about this place, but for the most part their words were based on their own imaginations, or mere report; whereas I call on only the evidence of what I have myself ocularly seen [ce qu'oculairement i'ay veu], or heard from those who are in the place itself.

André Thevet, Cosmographie Universelle

Starting his travelling life as a Franciscan pilgrim with some sympathy for the Reform, or perhaps a spy with messages to transmit to Aramon's people in Pera, André Thevet converted on his return from Jerusalem into both an ardent opponent of the Protestant cause and a globe-trotter who took the search for wonders far further afield than any other French travel writer before him. His story, which has been expertly resurrected by Frank Lestringant in a series of illuminating studies, made more than good on the fictional Panurge's claim to have tales to tell more wondrous than those of Ulysses. ¹⁰ A new-historicist's dream, he sailed along the borders of fact and fiction, charting a remarkable series of actual journeys, while also, obsessively, rewriting his travels, stuffing

See, in particular, F. Lestringant, André Thevet: Cosmographe des derniers Valois (Geneva, 1991) and Le Huguenot et le Sauvage: L'Amérique et la controverse coloniale en France, au temps des guerres de Religion (Paris, 1990).

them with ever more incident, accident and danger as he grew older, wealthier and perhaps wiser to the ways of the world at home.

Thevet became the most celebrated French traveller of his time, having seen – so a wonderful and often repeated *topos* ran – such things as to bring tears to Alexander's eyes. Finisher and author of his own travels, he was lauded by a galaxy of Pléiade and other poets, from Dorat to du Bellay, to Jodelle and Ronsard, for having 'brought the spoils of the universe home to France':

Compared to you, that Greek [Ulysses] in ten years saw nothing: What is more, you have over him the dual advantage Of seeing more than him, and of making your voyage Your own, in your own hand; he never owned his.¹¹

The success of Thevet's signature, his 'main propre', was a function of his narrative skill, his ability to apply the vernacular first person of his own making to such incidents and accidents on the journey as moved him beyond Ulysses, beyond even Panurge, and into the *New Found Worlde*.¹²

On returning home from his Jerusalem journey in 1552, Thevet saw that to be on a pilgrimage was, generically speaking, to be on a losing ticket. Reconceiving his narrative as a *Cosmography of the Levant* (1554), he argued in his preface that 'Dieu le créateur aime les viateurs' (*CL*, 14). God the creator loves aviators might come close; it works no better in translation than it does in French. But it worked for Thevet as, with learning, hard work and a lot of style, he made a 'viateur' of his pilgrim self and a cosmography of his pilgrimage, before heading due west, telling of the *Singularitez de la France Antarctique* (1557) on his return, and then, from his personal chair as Cosmographer Royal, composing the vast *Cosmographie Universelle* (1575), a compendious encyclopaedia held together by the tenuous thread of his own travels. The monumental *Grand Insulaire* (c.1586–7), an attempt to chart, describe and capture in copper-plate image all the islands of the world, remained incomplete at Thevet's death.

Panurge, self-confessed 'amateur de peregrinité' is rendered almost unrecognisable by his travels, having survived being skewered, basted and roasted at the spit. Other pilgrims are less fortunate; if we are to believe the reports of friends and companions, more than one ends up impaled, and others are cut to more than a hundred pieces. In the middle of a violent storm on the quest to the Holy Bottle, Panurge makes a vow to 'make a Pilgrim': he means he will send a pilgrim to Loreto by proxy, if he is spared. Thevet, when first recounting how he fared during *his* storm just off the coast of Mytilene, seems

Thevet, *La Cosmographie universelle* (Paris, 1575) II, liminary pages; the same point is made by Baif, *CU*, I, eiij^r. For the context, see Lestringant, *André Thevet*, 114–26.

Thevet's, Singularitez was translated by Thomas Hacket as The New Found Worlde, or Antartcticke, Wherin is Contained Wonderful and Strange Things (London, 1568).

¹³ Rabelais, Gargantua and Pantagruel, 576.

to mark his difference from those around him as they offer up such promises and prayers. Not for him such 'mockery and superstition, a thing more Ethnic than Christian, and a very defiance of God's power and might' (CL, 47). There follows a full page of pious neo-Reformist sermonising about how the sailors, in their superstition, have misunderstood the facts about faith: God disposes according to his 'bon vouloir', not in response to our 'vaine conjurations'; 'vive foy' is our only support and nothing, not the sea and its waves, nor the lightening, nor death, nor even the devils can separate us from the love of God. This is not just Pauline preaching; as Lestringant has shown, Thevet is here, in his very argument about danger and difference, both recycling the coinage of common experience and imitating a number of specific textual precursors. Not only is the *topos* of the storm at sea a fictional commonplace from Homer through Erasmus, it is also an exemplary instance of pilgrim danger, recounted in almost all travel narratives of the period. Indeed, the very force of Thevet's miniature sermon, its severity, and the clarity of the distinction of the learned traveller from the more superstitious sailors is pure pilgrim-speak, albeit echoed in an initially unlikely voice: Thevet has borrowed not just the tone from Pantagruel, chiding the babbling, fearful Panurge in the storm scene of the Quart Livre, but also a line or two verbatim.¹⁴

Thevet never quite discards his pilgrim self, any more than he does the rhetoric of pilgrimage. He returns to his Jerusalem journey again and again in his later texts, and in a later account of the Mytilene storm, written some thirty years after the event, and signalled in the margin as, 'Notable thing for the Reader to read', he redescribes both the material conditions of the journey and the generic lessons to be learned from the event. In resetting the scene in the *Cosmographie Universelle*, Thevet first tells us that his boat was a Turkish vessel, headed from Greece to Egypt, and then, marking his difference from his earlier pilgrim self, and his new allegiance to a cosmopolitan world of variety and wonder, he says that the boat was 'wondrously packed full of people of all sorts, passengers travelling to one or other of the sepulchres, either Jerusalem or Mecca'. For good measure, he then extends the length of the storm to an epic six days and six nights. On one morning during the storm, 'three old men', two white as snow and the other aged around sixty, all Turks, rose as one to declare that they were

unworthy to undertake such a pilgrimage, and to visit the sepulchre of the Prophet of God, and that they knew for certain that the winds were angered against them, and the sea enraged by their sins, as the prophet had informed them of this during the night. For this reason, so as to purge their unworthiness, to comply with God's

Thevet's storm derives, in the literary tradition, from the *Odyssey* (V, 292 ff) and the *Aeneid* (1, 34–156); more immediately, he writes with Erasmus's *Naufragium*, Bertrand de la Borderie's travelogue-poem, the *Discours du voyage de Constantinoble* (1542) and Rabelais's *Quart Livre* (chs 18–22) not only in mind, but open at his desk. For more on this, see Lestringant, *André Thevet*, 49–56.

messenger, and to save those more worthy than themselves, from such and from greater danger, they threw themselves in the water.¹⁵

Thevet, who passes no moral judgement on the men's actions, notes – as had Rabelais's narrator, in *his* account of Panurge and Pantagruel's storm – that the sea made such noise on receiving them into itself that those on board thought that the elements were confounded and that chaos had come again.

This is not the end of the story, for the danger is not yet over. Thevet, eight Greeks and twelve Jews, seeing 'the rest of the Turks' so moved by the events, feared for their lives, persuading themselves that they would be held responsible for 'the disaster'. Acting on the advice of yet another 'Turk', singled out as 'our familiar and friend (since secretly we would give him some wine and some of our salted tongues of Pork)', they hid themselves for six hours down in the bowels of the boat, among the bales of cloth and other goods in the hold (163^r). As in the proto-evangelical storm of some thirty years earlier, Thevet retails danger as a way of establishing distinction from his fellow-passengers and his unique credentials as an author. It is difficult not to read this story, which Thevet presents as a real-life occurrence, as – amongst other things – a kind of allegory concerning his own attempted denial of his earlier pilgrim self. The unworthy pilgrims had to die, in order for the author to live. And yet both the aged, noble Turks, more devout in their faith than modern-day Christians, and the native informant partial to a bit of wine and salted pork, are also, of course, topoi of the developing Orientalist discourse in which Thevet the author trades, and on whose credit he draws. For him, the poetics of witness were kin to those of romance, and it was a kinship he was happy to exploit and to explore. What others feared as the moral and physical outcomes of excessive curiosity – losing your way, being entrapped by slavetraders posing as merchants, finding yourself almost induced into sodomy, and escaping from what looked like certain death – were, for Thevet, so many romance tropes narrated as existential facts.

'Author in danger of his life' accompanies as a shoulder-note several passages in Thevet's *Cosmographie Universelle*. On more than one occasion the danger is that which Castela will specifically warn against in his pilgrim handbook: 'being caressed as a spy'. There is the tale of the Spaniard cut to more than a hundred pieces for slipping into the Dome of the Rock disguised as a Moor, a fate Thevet narrowly avoided when he peered in himself, though he still doesn't know quite how; then there is the time when Thevet saw a number of Jewish travellers captured and impaled before his eyes. He himself escaped with just a beating, but carried the scars on his left arm for three years.¹⁶

¹⁵ Thevet, CU, I, 163^r.

Thevet, CU, II, 170°; and 339. See also my discussion of the former scene in *Pilgrimage and Narrative*, 266–72.

Such incidents of mortal danger punctuate his writings, whether on the Old World or America, running as a kind of complement to the other constant refrain: Pliny, Solinus, Münster, Cardano ... is in error, is wrong, 's'abuse & se trompe'. While the early Thevet is indulgent towards those who will read texts such as his in order to undertake pilgrimages of the mind, the later Thevet argues always, and insistently, that there is no evidence but that of personal experience; only those who have seen what they speak of have the right to speak, only those who have experienced the dangers of travel have the right to narrate. The logical extension of this poetics of extreme witness is that there is no better proof of having witnessed a wonder or a horror, be it secular or sacred, than having almost lost one's life in so doing. The ability to alert the reader to any number of moments when 'the author [was] in danger of his life', and yet survived to tell the tale, makes of him, Thevet argues, not only the owner of his own story, but also an object of curiosity; it makes of his text a cabinet of singular wonder.

Jean de Léry: 'rentrant de fièvre en chaud mal (comme on dit)'

Since, as I have shown in the present history, I have been delivered, not only with my fellows but also in my single person, from so many kinds of dangers, indeed from so many abysses of death, can I not say ...

Léry, History of a Voyage

Jean de Léry, who, like Thevet, was part of the French attempt to set up a cross-confessional colony in Brazil, acknowledges that he made the journey 'as much out of an earnest desire that God has given me to serve His glory, as out of curiosity to see the New World'. He also took care, while away, to gather together a number of objects – such as monkeys, parrots, and shields made from the skin of the half cow, half donkey tapiroussou – which he knew would serve as singularities back home. Once printed, his narrative is advertised as the History of a Voyage to the Land of Brazil, Containing the Navigation and the Remarkable Things Seen by the Author ... Strange Ways of Life of the American Savages ... the Description of Various Animals, Trees, Plants and Other Singular Things Completely Unknown over Here. The 'over Here' is crucial, for Léry's account turns, again and again, from observation of the New World to lamentation about the state of the Old. The 'extreme dangers' he and his fellow travellers face both within Brazil and – indeed especially – on their

¹⁷ J. De Léry, Histoire d'un voyage faict en la terre du Brésil. 1578, ed. F. Lestringant (Paris, 1994); History of a Voyage to the Land of Brazil, trans. J. Whatley (Berkeley, 1990), here at 6.

journey home, are always narrated, and find their significance, in relation to the problems familiar to his readers at home. It is this recursive narrative structure as much as the singularity of the observations themselves that led to Léry's account being dubbed the 'anthropologist's breviary' by Lévi-Strauss in that revisiting of it which is *Tristes Tropiques*. For Léry's Jeremiad for a lost France grounds not only the nostalgia of the modernist discourse of structural anthropology, but also much early modern thought and writing about the vanishing wonders of the brave New World from Montaigne's 'Of Cannibals', to Gonzalo's utopian dream-speech in Shakespeare's *Tempest* (II.i.154ff).

It is also, in its own time, a tale told in fury and righteous anger. For Léry writes – with a strong sense that 1578 is already too late – against the lies and monstrous slander propagated first in the *Singularitez* of 1557 and then in the 1575 *Cosmographie Universelle*. He writes, then, to counter what he terms the calumny, the monstrous lies of Thevet, who, writing from firmly within the Catholic camp, had so defamed those Protestants he held responsible for the disastrous failure of the colonial enterprise. Léry takes up his pen first to quote his opponent, and then to prove him wrong:

I had forgotten to tell you about certain ministers of the new religion, whom Calvin had sent to plant his bloody religion. These gallant preachers, who were trying only to get rich and seize whatever they could, created secret leagues and factions, and wove plots which led to the death of some of our men. Some of the mutineers were caught and executed, and their carcasses went to feed the fishes ... The savages, incensed by such a tragedy, nearly rushed upon us to put to death all who were left.

Those are Thevet's very words, which I ask the reader to note well. For since he never saw us in America, nor we him, and since even less was he (as he says) in danger of his life because of this, I want to show that he has been in this respect a bold-faced liar and a shameless calumniator.¹⁹

The credibility of the witness is here explicitly allied to danger survived. Léry's critique, repeated again and again in his text, goes directly to the heart of Thevet's repeated claim: that his authority is derived from his having been 'in danger of his life'. He never was; Thevet was in Brazil only a matter of weeks, and spent most of that time safely on board ship, anchored off the coast; furthermore, his journey home was a breeze. Léry's own testimony, by contrast, is supported by the horrors he lived through on his return journey, the 'extreme famine, tempests and other dangers' he endured, a time when he went, he writes, 'de fièvre en chaud mal': from the frying pan into the fire (208). Nevertheless, he survived. His having done so is proof both of his election and of the responsibility placed upon him, to bear witness to the truth.

¹⁸ C. Lévi-Strauss, *Tristes Tropiques*, trans. J. Russell (New York, 1972), 85.

¹⁹ Léry, History of a Voyage, xlvii.

At times, the details Thevet is said to have got wrong about Brazil, its wonders and the conditions of colonial life appear minimally significant in the context of the wider debate: the size of the toucan's bill, the manner in which parrots build their nests, or the way in which the Tupinamba cook the tapiroussou, or smoke fish, or grill the 'thighs, arms, legs and other big pieces of human flesh'. On this last point in particular, Léry is adamant: the Tupinamba use a specific form of grill, supported on four forks, staked out in a square about three feet by three, and two and half feet high: 'And there you have the boucan and boucanerie, that is the rotisserie of our Americans. By the way (with all due respect to him who has written otherwise), they do not abstain from boiling their meat whenever that suits them' (79). The stress on getting the details right, and on knowing the word for the thing – whether toucan or boucan – is central both to Léry's ethnographic project and to his understanding of how readers at home consider foreign words themselves to be a species of singularity, their transcription in the text a kind of transportable wonder. But it is also more. For the attention to the detail of Tupi words, to their ways of seeing and judging the French would-be colonists is also a function of Léry's repeated, obsessional debunking of Thevet's 'fariboles et contes faits à plaisir' (114). If Thevet can be shown to get the details about birds nests and boiling wrong, how is he to be trusted on the more complex questions of belief, custom and language, whether of the Tupi or of fellow-travellers, his fellow Frenchmen?

If his own longer acquaintance with the Tupi supports Léry's argument against the calumnies of his Catholic opponents, it is the journey back to France, and the betrayal of the settlement by the turncoat commander Villegagnon, that grounds his rage at Thevet's illicit use of the Protestant rhetoric of testimony. For the return journey was one on which Léry and his fellow-passengers endured terrors far greater than any Thevet, who had long since returned home, ever wrote of. The storm was terrible: Papist sailors here, as elsewhere, committed themselves to Saint Nicholas and made all manner of 'marvelous vows'. But the calm, in which the ship drifted aimlessly for weeks, was worse. In desperation, enacted by the confused syntax of Léry's sentence, the travellers were obliged to 'teach those monkeys and parrots which they had kept to speak another language that they did not yet know, and put them into the cabinet of their memory, and made them serve as food.' Some tried to boil pieces of tapiroussou skin into a kind of soup; it was awful. Others cut the shields into strips, and grilled them over coals, 'with such success that ... it was as if we were eating carbanadoes of bacon' (208). Léry's return journey returns us in turn, and in conclusion, to the question of testimony, and to bacon.

Conclusion: 'And, without going further, what of France?'

If someone finds it ill that hereafter, when I speak of savage customs, I often use this kind of expression – 'I saw', 'I found', 'this happened to me' and so on (as if I wanted to show myself off) – I reply that ... the things put forth by me in this history are not only true, but also, since they have been hidden to those who lived before our age, worthy of wonder.

Léry, History of a Voyage

Léry concludes his preface with the above thoughts on lying and on the grammar of testimony. He is 'not unaware' of the common saying which accords to old men and travellers to distant lands the 'license to lie', but he assures his readers that his text is as truthful concerning Brazil as was his earlier account of the siege and famine of Sancerre. The point is polemic: his earlier account of the violence done by Catholics to the besieged Protestants in Sancerre, forcing them into a cannibalism of desperation, ghosts his account of the New World experience throughout.20 For, like his reader Montaigne after him, Léry will argue that the greater barbarians, the truly bestial cannibals, and the only true monsters are those to be found at home, on the streets and in the churches of France. The point is made repeatedly throughout the *History* of a Voyage, repeatedly in relation to cooking, eating, broiling and grilling. As others have shown, the thematics of cannibal food connect with those of civility, and, of course, with the mass.21 Léry himself makes the connections, and the point, nowhere more forcefully than at the conclusion to the chapter concerning 'the ceremonies for killing and eating prisoners'; it is an argument best introduced, as Léry knows, by way of refutation of others, and reference to the tale with which we opened this discussion, that of Panurge, his strips of bacon and his roasting on the spit.

'In Chapter X, on animals,' Léry writes, 'I have explained at length the style of the *boucan* while speaking of the *tapiroussou*, therefore, to avoid repetition I ask the readers, the better to imagine it, to refer to that passage. However I shall here refute the error of those who, in their maps of the world, have represented and painted the Brazilian savages roasting human flesh on a spit, as we cook mutton legs and other meat.' Léry's specific target here is not, for

²⁰ See G. Nakam (ed.), Au lendemain de la Saint-Barthélemy: Guerre civile et famine. Histoire mémorable du Siège de Sancerre (1574) de Jean de Léry (Paris, 1975).

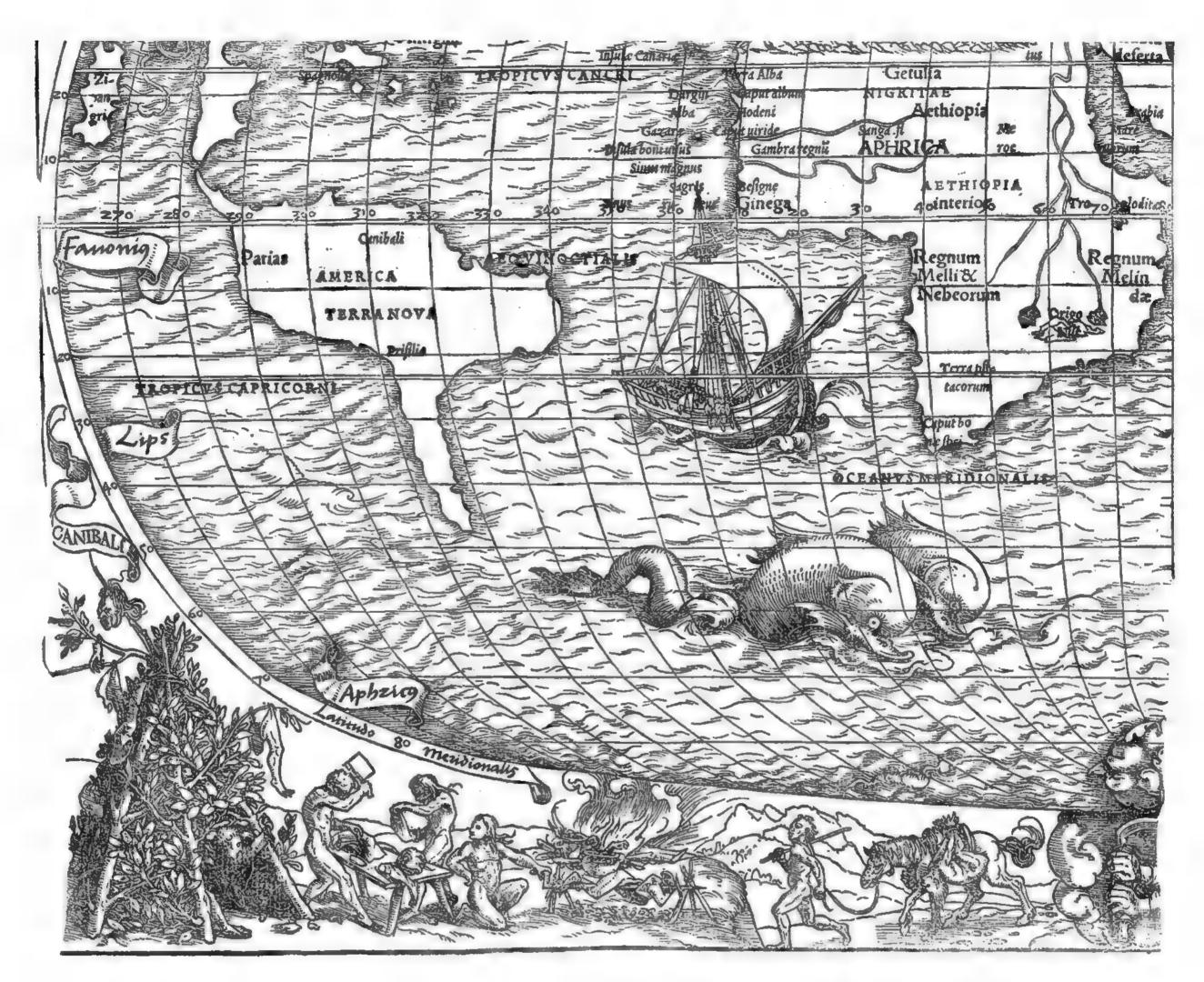
See J. Whatley, 'Food and the Limits of Civility: the Testimony of Jean de Léry', *The Sixteenth Century Journal*, 15 (1984), 387–400; F. Lestringant, *Une sainte horreur, ou le voyage en Eucharistie, XVIe–XVIIIe siècle* (Paris, 1996); G. Hoffman, 'Anatomy of the Mass: Montaigne's "Cannibals"', *PMLA*, 117, 2 (2002), 207–21 (this latter also has an excellent bibliography).

once, Thevet; nor, I think, is it Sebastian Münster, whose Scythian woodcut we referred to in the prologue above. A more likely candidate is Holbein, who, together with Grynaeus, made the most of a host of lurid images of spitroast, butchery, of human organs and limbs, to adorn the edges of the western hemisphere of the Weltcarte which introduces the latter's Novus Orbis (Basel, 1555) (Fig. 2.3). Thevet himself is faithful to the reality of the boucan in his pictorial representation of the cannibal kitchen, and it is his (rather than Léry's non-existent) images of cannibalism, fused with the inherited iconography of the Scythian, that other historians of the conquista and of Dominican missionising in Latin America will exploit over the course of the early modern period (Fig. 2.4).²² But Léry's focus is not, for the moment, on mission abroad, but, once again on detail and the importance of getting the facts right: 'Since these things [that cannibals spit-roast humans] are no truer than the tale of Rabelais about Panurge escaping from the spit larded and half-cooked, it is easy to see that those who make such maps are ignorant, and have never had knowledge of the things they set forth' (Léry, 126–7).

Whoever his specific target, the difference between spit-roasting and grilling someone on a *boucan* clearly has a peculiar status in Léry's argument. For it figures on the one hand – ethnographically – as a sign of the cannibals' attention to ritual, to custom, and as a mark of their being the custodians of a particular set of properly cultural norms and practices; on the other – polemically – it figures Léry's own attention to the details of Tupi life, and his refutation of the errors of others, whether rival witnesses or stay-at-home geographers, who have lived through both the dangers and the occasional pleasures of travel that Léry himself has known. As if in confirmation, there follows, in the text, a fine anecdote in reverse perspective, in which Léry and some companions who were 'cooking a guinea hen and some other poultry on a spit' become themselves the object of Brazilian wonder, and indeed laughter. For, 'seeing the meat continually turn, they refused to believe that it could cook, until experience showed them so' (127).

This short fable about the instructional value of experience appears, initially, to respond to the Rabelaisian tale about Panurge here retold in miniature: little more than a self-conscious ethnographic quip, it giggles 'look how curious and strange we look to them!' But in truth the reverse of perspective it effects sets in place the last of Léry's extended observations on curiosity, witness and danger. For the last violent, harrowing pages of this the central chapter

Lestringant suggests that Léry's target here is Münster; I am not so sure. Thevet's image (Fig. 2.4; CU, II, 946), the one most frequently reproduced in recent discussion, was adapted first by de Bry and then, in a composite that looks like it was also adapted from Holbein, by Honorio Philopono, alias Kaspar Plautz, in his *Nova typis transacta navigatio* of 1621 (Figs 2.5 and 2.6; HP, plates 5 and 17). For more on the early printed iconography of cannibalism, see F. Gewecke, Wie die neue Welt in die alte kam (Stuttgart, 1986).



Hans Holbein, Weltcarte from Grynaeus, Novus Orbis (1555). Reproduced by kind permission of The Bodleian Library, Oxford.

concerning 'ceremonies for killing and eating' return the reader, forcefully, to France. First, we are reminded of the argument that the mass and usury are themselves forms of mediated cannibalism; and then we are taken back to the walls and streets of Paris and Lyon, to 24 August 1572.

'And, without going further, what of France? (I am French, it grieves me to say it).' If Léry has a sense of his own peculiar election, his having survived the horrors of the return journey from Brazil in order to refute the lies of the likes of Thevet, he knows that, when it comes to bearing witness to the Civil Wars in France, and to the butchery that took place on St Bartholomew's Day, he is far from alone: 'There are thousands alive today,' he writes in the penultimate paragraph to the chapter, 'who beheld these things never before heard of among people anywhere, and the books about them, printed long since, will bear witness for posterity' (132). These tales, which Walter Benjamin's story-teller might have termed 'unnatural histories of death', were not of the curious wonders of some New World; nor, in truth, were they merely the final



2.4 Cannibals from André Thevet, *Cosmographia Universalis* (1575). Reproduced by kind permission of The Bodleian Library, Oxford.

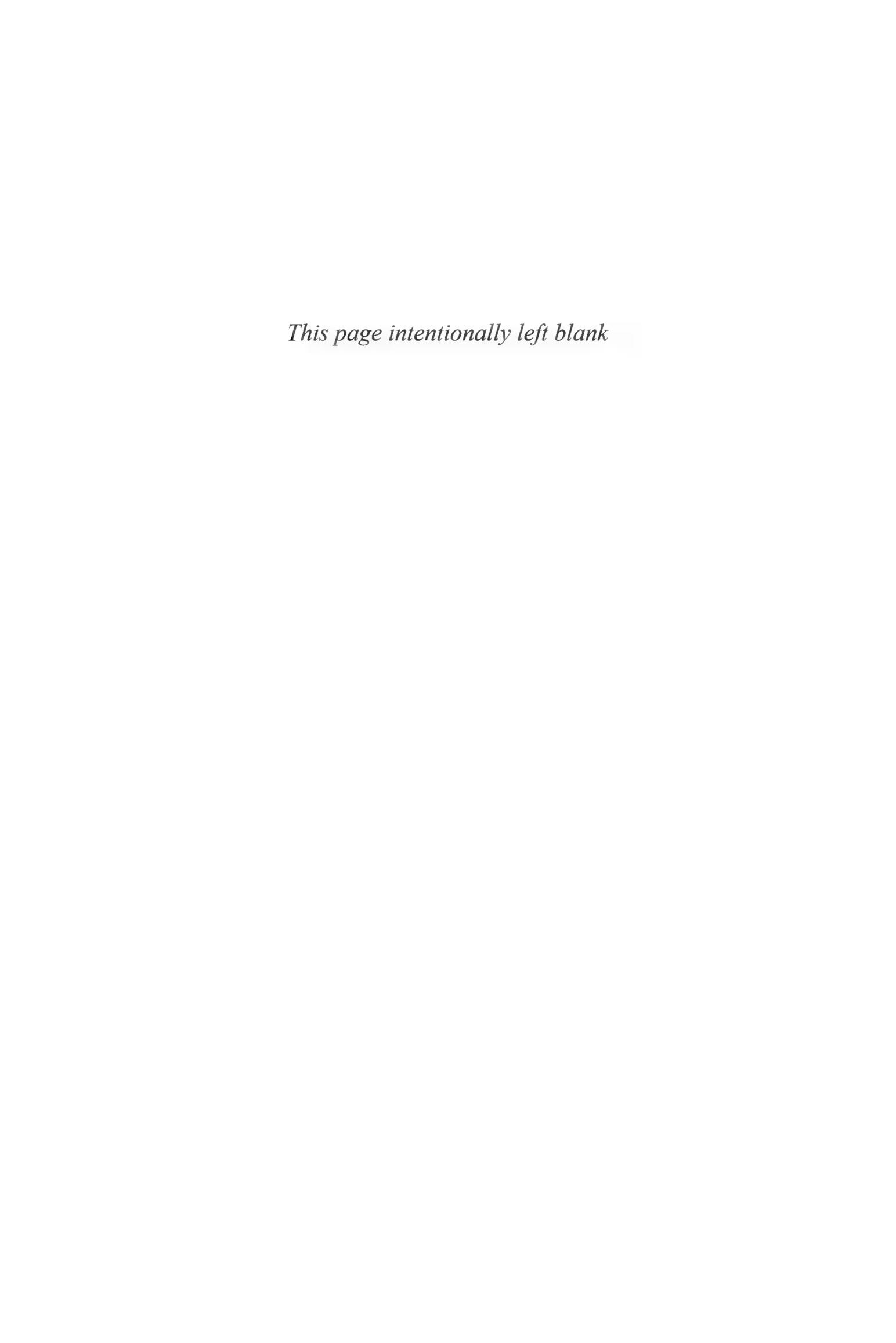
convulsions of the Old. They were, rather, as Léry's own conflation of usury with the mass makes clear, signs of a fanaticism which is neither old nor new, but driven by motivations at once economic and religious which hide, still, at the heart of our culture: 'one need not', Léry notes, 'go beyond one's own country, nor yet as far as America, to see such monstrous and prodigious things.'



Cannibals from Kaspar Plautz, Nova typis transacta navigatio (1621), plate 5. The Bodleian Library, Oxford.



Cannibals from Kaspar Plautz, Nova typis transacta navigatio (1621), plate 17. The Bodleian Library, Oxford.



The metaphorical collecting of curiosities in early modern France and Germany

Neil Kenny

Especially from the early seventeenth century onwards, within a group of largely secular institutions in Europe – some relatively formal, official and regulated (academies, learned societies, publishing houses), others looser and more informal (networks of savants, naturalists, collectors, travellers and antiquarians) – there developed various worldly discourses of curiosity¹ that were attacked by churches and, to a certain extent, universities. The two relatively newest and most distinctive semantic features of these worldly discourses were, first, their tendency to make curiosity, on the whole, something more good than bad and, secondly, their enthusiasm for curiosities – that is, they were responsible for the rapid proliferation of object-oriented usages of this family of terms ('a curious shell'), alongside the continuing subject-oriented ones ('a curious collector'). The tendency within this culture of curiosities² to call objects 'curious' often entailed shaping matter or discourse into a collection of fragments. In other words, when several material or discursive objects were described as 'curious' or as 'curiosities', it was stated or implied that they were fragments belonging to a literal or metaphorical collection. This tendency did not characterise all early modern discourse on curiosity, but rather the culture of curiosities in particular. It was sometimes couched in terms other than the language of curiosity; but it was very often grounded in the object-oriented semantic thread of the 'curiosity' family of terms. In cases where it was, I am labelling it the curiosity-collecting tendency (or thread, strand or metaphor). In cases where it was not, I am simply labelling it the collecting tendency.

¹ 'Curiosity' is used throughout as shorthand for the family of terms comprising *curiositas*, *curiosus*, *curiosité*, *curiosităt*, *curios*, and so on. The present essay is a distillation of some elements of Section 3 of N. Kenny, *The Uses of Curiosity in Early Modern France and Germany* (Oxford, 2004).

² I am modifying Krzysztof Pomian's famous phrase 'the culture of curiosity': Collectionneurs, amateurs et curieux: Paris, Venise, XVIe–XVIIIe siècle (Paris, 1987), 61–80.

However, this was only one of two discursive tendencies which often accompanied any given occurrence of the 'curiosity' family of terms. Secondly, in other instances, especially when 'curiosity' was used in a subject-oriented sense, the surrounding text stated or implied not a collection of objects but rather a narrative, a story. Phrases like 'my curiosity' or 'she was curious' often denoted one stage in a narrative which then led to a happy end ('my curiosity led me to learn nature's secrets') or, more unusually, an unhappy one ('being curious, she was punished'). The narrative could be fictional or true; it could last a sentence or a whole volume. Again, in cases where this narrating tendency was grounded in the 'curiosity' family of terms, I am labelling it the curiosity-narrating tendency (or thread or strand). In cases where it was not, I am simply labelling it the narrating tendency.

Curiosity, then, usually entailed either collecting or narrating, in the senses outlined. In the culture of curiosities, it entailed especially collecting. On the other hand, in other institutions and discourses – university, church, moralising fiction and theatre – the older curiosity-narrating strand was dominant.³

The curiosity-collecting tendency was obviously prominent in the discourse of those who collected material objects, whether in cabinets, museums or libraries. But it also spread to a wide range of other discourses and genres, especially outside universities – how-to books, miscellanies, newspapers and other periodicals, as well as some books on nature and art, luxury and fashion, collecting, antiquarianism, travel, history, occult sciences - even when the only objects being collected were discursive rather than material ones. In other words, the collecting of material objects was perhaps the literal term of a metaphor that spread to other discourses. However, the shape of discursive collections may have influenced that of material ones, as well as vice-versa. Indeed, even my distinction between material and discursive objects is in fact tenuous, since the discursive objects – facts, recipes, anecdotes, and so on – that were collected in books and periodicals were also partly material, in that they consisted partly of print and paper. So, instead of seeing collecting 'proper' as necessarily being the authoritative and originary literal term which then spread figuratively, as a metaphor, to other secondary discourses, I suspend judgment about the origins of this metaphor; thus I differ from those who argue that the 'privileged sites' of curiosity were the eclectic cabinet and the Wunderkammer⁴ or that the 'privileged image' of the early modern *curieux* was the collector;⁵ there were other important sites and images of curiosity, not

³ See Kenny, *The Uses of Curiosity*, Sections 4–5.

⁴ G. Olmi, L'inventario del mondo: Catalogazione della natura e luoghi del sapere nella prima età moderna (Bologna, 1992), 191 ('i luoghi d'elezione').

⁵ N. Jacques-Chaquin, 'La curiosité, ou les espaces du savoir' in N. Jacques-Chaquin and S. Houdard (eds), *Curiosité et 'libido sciendi' de la Renaissance aux Lumières*, 2 vols (Fontenay-aux-Roses, 1998), i, 13–32 at 14 ('l'image privilégiée').

only in other institutions (university and church) but also elsewhere, even within the culture of curiosities itself.

They were often intertwined, cooperating or competing with each other within a single text: for example, some travelogues were driven forwards by the subject-oriented curiosity of the traveller that led him from one place to the next, but they also came to long halts when a place's object-rooted curiosities and curious features were listed, turning narration into collection.

The relation between the two strands was often agonistic. In 1665 the mechanical philosopher Robert Boyle eloquently privileged narrating over collecting: he associated narrating with subject-oriented curiosity (but did not, in this instance, associate collecting with curiosities). If you have been reading Aesop's fables, he says,

or some other *collection* of apologues of differing sorts, and independent one upon another; you may leave off when you please, and go away with the pleasure of understanding those you have perused, without being solicited by any troublesome itch of *curiosity* to look after the rest, as those, which are needful to the better understanding of those you have already gone over, or that will be explicated by them, and scarce without them. But in the book of nature, *as in a well-contrived romance*, the parts have such a connection and relation to one another, and the things we could discover are so darkly or incompleatly knowable by those, that precede them, that the mind is never *satisfied* until it comes to the end of the book; till when all that is discovered in the *progress*, is unable to keep the mind from being molested with impatience, to find that yet concealed, which will not be known, till one does at least make a further *progress*. And yet the full discovery of nature's mysteries is so unlikely to fall to any man's share in this life, that the case of the pursuers of them is at least like theirs, that light upon some excellent romance, of which they shall never see the latter parts. [my italics]

Even 'the pleasure of making physical discoveries' is always accompanied by 'both anxious doubts, and a disquieting curiosity'. Thus, natural philosophy is not a collection (of discontinuous fables) but rather a linear narrative, whose *telos* is deferred beyond the life of any single philosopher-reader. Just as the 'connection' between 'the parts' of the romance is only partially perceived, so the experimental search for causal understanding is necessarily provisional and conditional. Still more cautious than the Royal Society founding member Boyle was Bernard le Bovier de Fontenelle in his 1702 preface to the first volume of the official history of its French counterpart, the Académie des Sciences. Without resorting to the vocabulary of curiosity, he *embraces* rather than rejects the collecting tendency, at least as a first step:

⁶ R. Boyle, Works, 5 vols (London, 1744), iii, 428. The passage occurs in *The Excellency of Theology, Compared with Natural Philosophy*, probably written in 1665.

⁷ On Boyle's epistemology, see S. Shapin, *The Scientific Revolution* (Chicago and London, 1996), 101–6.

Hitherto the Académie des Sciences has grasped Nature only in *small chunks*. There is no general *system* ... Today one fact is established, tomorrow an entirely *unconnected* one. Conjectures about causes continue to be hazarded, but they are just conjectures. So the annual *collections* which the Académie presents to the public are composed only of *detached pieces*, independent of each other.

The possible second step and *telos* will be not the long-awaited dénouement of a romance but rather the integration of everything collected: Fontenelle imagines this by projecting a narrative structure onto collecting, imagining a future progress towards integration, and thereby blissfully fusing the collecting with the narrating tendency: 'Perhaps the time will come when we will join together these scattered members into a regular body; and if they are as we wish them to be, then they will somehow assemble themselves of their own accord.' This is, after all, only the first volume of the history of the Académie, on a par with the first volumes of Boyle's imagined romance.

Thus, the collecting and narrating tendencies of curiosity often had an epistemological or cognitive dimension, not only in naturalist discourse but also in others, such as the relatively young discipline that came to be known as 'the history of learning' (historia litteraria or histoire littéraire). That discipline, at least in its current state, was sometimes explicitly described as a metaphorical collection of curiosities, for example by this mid-eighteenth-century pedagogical manual:

Let's constantly amass items of knowledge – one curiosity at a time – which combine real usefulness with much pleasure ... But our writers have divided up their task: they have given us *histoire littéraire* piece by piece, instead of giving it in its entirety and full scope. While we wait for some skilful hand to take the trouble to collect together those scattered materials, in the meantime I am presenting to young people ... a short introduction to that history.¹⁰

⁸ 'Jusqu'à présent l'Académie des Sciences ne prend la Nature que par petites parcelles. Nul Système général ... Aujourd'hui on s'assure d'un fait, demain d'un autre qui n'y a nul rapport. On ne laisse pas de hasarder des conjectures sur les causes, mais ce sont des conjectures. Ainsi les Recueils que l'Académie présente tous les ans au Public, ne sont composés que de morceaux détachés, et indépendants les uns des autres ... Le temps viendra peut-être que l'on joindra en un corps régulier ces membres épars; et s'ils sont tels qu'on les souhaite, ils s'assembleront en quelque sorte d'eux-mêmes.' B. Fontenelle, Œuvres complètes, ed. A. Niderst (Paris, 1989–), vi, 49–50. On this passage in the context of the Académie's predilection for strange facts, see L. Daston and K. Park, Wonders and the Order of Nature, 1150–1750 (New York, 1998), 246.

⁹ On historia litteraria, see P. Nelles, 'Private Teaching and Professorial Collections at the University of Kiel: Morhof and historia litteraria' in F. Waquet (ed.), Mapping the World of Learning: The 'Polyhistor' of Daniel Georg Morhof (Wiesbaden, 2000), 31–56; P. Nelles, 'Historia litteraria at Helmstedt: Books, Professors and Students in the Early Enlightenment University' in H. Zedelmaier and M. Mulsow (eds), Die Pratiken der Gelehrsamkeit in der Frühen Neuzeit (Tübingen, 2001), 147–76; H. Zedelmaier, Bibliotheca universalis und bibliotheca selecta: Das Problem der Ordnung des gelehrten Wissens in der frühen Neuzeit (Cologne, 1992), ch. 4.

^{&#}x27;Curiosité pour curiosité, amassons toûjours des connoissances qui à une utilité réelle joignent beaucoup d'agrément ... Mais nos Ecrivains se sont partagé leur tâche: ils ont donné l'Histoire Littéraire piéce à piéce, au lieu de la donner en entier et dans toute son étenduë. En

A little later still, he speaks of 'the various pieces of *histoire littéraire* which we possess'.¹¹ The discourse is remarkably similar to that with which the academicians Boyle and Fontenelle described the current state of naturalist and experimental knowledge: as with Fontenelle, this pedagogue's description of spatial fragmentation is leavened by a glimpse of a future narrative in which the scattered pieces will eventually be integrated into a whole by a skilful hand.

Beyond *historia litteraria*, other kinds of historiography also shaped the past as a collection of curiosities. But certainly not all did. For example, the mode of historiography that was politically dominant in Louis XIV's France did not do so: history-writing that transmitted moral and political messages (often in favour of the King) via a strong narrative thread, subordinating the role of erudition and documentation, indeed hiding their traces beneath a smooth, uniform rhetorical surface, uninterrupted by heavy citation of sources. This was the kind that the leading prelates Fénelon and Bossuet favoured. They denounced its main rival, which had affinities with antiquarian discourse and *did* often shape the past as a collection of curiosities: history-writing that cited its sources and documents directly, giving far more detail about past events and persons, not subordinating the detail to overarching moral schemata, striving less for eloquence than for erudition, and including many brief, discontinuous or fragmentary narratives but not any single, over-arching one.¹²

In a letter of 1714 (published in 1716) Fénelon tried to persuade the Académie française to promote the eloquent over the antiquarian kind of historiography:

He who is more a scholar than a historian and has more erudition than true genius does not spare his reader a single date, a single superfluous circumstance, a single dry and discrete fact. He follows his own taste without paying heed to the public's. He wants everyone to be as curious as he is about the minutia at which he directs his insatiable curiosity. By contrast, a sober and discerning historian omits these tiny facts, which do not lead the reader to any important goal. Cut out those facts and you remove nothing from the history. They only interrupt, prolong, and make history that is, so to speak, chopped up into little bits, lacking any living narrative thread. That superstitious precision ought to be left to compilers. What matters most is to introduce the reader to the fundamental things, to make him discover the connections between them, and to waste no time in getting him to the dénouement.¹³

attendant qu'une main habile veuille bien se donner la peine de ramasser ces matériaux épars, je présente aux jeunes gens ... une courte Introduction à cette Histoire.' F. Juvenel de Carlencas, Essais sur l'histoire des belles lettres, des s[c]iences et des arts, 4 vols (Lyon, 1749; 1st edn 1740–44), i, viii—xii.

- ¹¹ 'les différens morceaux que nous avons de l'Histoire Littéraire' (at xv).
- ¹² For an overview of the early modern and modern tension between documentary and narrative historiography, see A. Grafton, *The Footnote: A Curious History* (London, 1997).
- 'L'homme qui est plus savant qu'il n'est historien, et qui a plus de critique, que de vrai génie, n'épargne à son lecteur aucune date, aucune circonstance superflue, aucun fait sec et détaché. Il suit son goût, sans consulter celui du public. Il veut que tout le monde soit aussi curieux que lui des minuties vers lesquelles il tourne son insatiable curiosité. Au contraire, un historien sobre et

The curiosity of the pedantic antiquarian scholar takes the form of collecting minutiae—that is, fragments that will never be integrated into a polished whole. However, Fénelon is not here condemning all curiosity, but only curiosity *qua* collecting;¹⁴ by contrast, he celebrates curiosity *qua* narrating. A little further on, he adds that good history-writing should have a strong *dispositio* or linear structure, like that of an epic poem, since Homer's chosen 'order constantly excites the reader's curiosity'.¹⁵ Fénelon is determined that curiosity should be the motor of a narrative rather than the collecting of particulars. To some extent, this historiographical dispute took the form of a battle between the narrating and collecting tendencies of curiosity.

The terms used by Fénelon suggest that the role played by curiosity in shaping and sifting knowledge in this historiographical context was broadly similar to that which it played in some naturalist discourses. His condemnation of the curiosity-collecting tendency of the Académie française closely echoes the celebration of that tendency by Fontenelle, twelve years earlier, on behalf of that institution's naturalist counterpart, the Académie des Sciences: whereas Fénelon rejects chopping history into 'petits morceaux', into 'fait[s] sec[s] et détaché[s]', Fontenelle had enthused that the Académie des Sciences offered naturalist knowledge as 'morceaux détachés'; whereas Fénelon advocates narrative history which makes 'liaisons' between events, Fontenelle had accepted that there was 'nul rapport' between the discrete pieces but that they might one day be joined together ('I'on joindra'). To some extent, these two famous voices were reflecting epistemological differences between discourses on nature and history in early eighteenth-century France: on the whole, it seemed more possible to write a narrative about history (complete with 'dénouement') than to write the 'well-contrived romance' of nature which Boyle tentatively imagined. Nonetheless both discursive tendencies - collecting and narrating - were present in writing about both history and nature.

They were also both present in some writing about travel. One manual which was designed to provide French aristocrats with material for travel-talk – whether or not they had actually left Paris – used travel as a metaphorical framework for the collection of unsystematic learning (philosophical and

discret laisse tomber les menus faits qui ne mènent le lecteur à aucun but important. Retranchez ces faits, vous n'ôtez rien à l'histoire. Ils ne font qu'interrompre, qu'allonger, que faire une histoire pour ainsi dire hachée en petits morceaux, et sans aucun fil de vive narration. Il faut laisser cette superstitieuse exactitude aux compilateurs. Le grand point est de mettre d'abord le lecteur dans le fond des choses, de lui en découvrir les liaisons, et de se hâter de le faire arriver au dénouement.' F. De Salignac de la Mothe Fénelon, Œuvres, ed. J. Le Brun, 2 vols (Paris, 1983–97), ii, 1178–9.

Here I differ from the excellent account of these historiographical disputes given in relation to Pierre Bayle by Élisabeth Labrousse, 'Le paradoxe de l'érudit cartésien Pierre Bayle' in *Religion*, érudition et critique à la fin du XVIIe siècle et au début du XVIIIe (Paris, 1968), 53–70 (62–70). She associates 'curiosité' wholly with mindless compilation, opposing it to critical historical analysis.

¹⁵ 'un ordre qui excite sans cesse la curiosité du lecteur' (1196).

historical as well as cosmographical) of the kind that was widely fostered within the culture of curiosities. The author spells out explicitly that his title – *The Curious Traveller* – is designed to give this material the same shape and epistemological status as that possessed by some historiography of an antiquarian kind:

I hope that, among the material given below, where I have *collected* all that is most curious and agreeable in nature, the reader will find not only subjects that are capable of satisfying his curiosity or of giving him some new knowledge, but also something that will help him converse and speak soundly on the most necessary and important truths.

But before proceeding I must advise my reader to reflect on the title of this work and to note the difference between the raw material for a conversation and, on the other hand, a finished conversation or speech. For example, Monsieur Du Chesne composed in many volumes various 'Collected pieces and memoirs' which can aid the history of France, ¹⁶ but he did not write a history of France. Similarly, in order to aid conversation, I have *collected* together in philosophical French, as I found it and without changing the language, much material written by various authors; but I have not written finished speeches, carefully structured and phrased. ¹⁷

This travel manual is divided into sections entitled 'Le Voyageur curieux', 'Philosophie curieuse' and 'Histoire curieuse'. 'Curious' thus shapes knowledge as a collection of discrete items which is kept in a raw, discontinuous state primarily so that it can be more easily recycled by conversationalists, but also so that it does not make illusory claims to systematic truth. Making knowledge into curious fragments here has both pragmatic and epistemological purposes.

Although this work is supposedly about travel, through its use of the curiosity-collecting metaphor to shape knowledge it resembles several other contemporary discourses and genres, not only certain kinds of naturalism and historiography but also, for example, what Gotthardt Frühsorge has shown to be the burgeoning German market of vernacular publications offering knowledge that was *politisch*, that is, of practical use to territorial rulers,

¹⁶ A. Du Chesne, Les Antiquitez et recherches des villes, chasteaux, et places plus remarquables de toute la France (Paris, 1609).

^{&#}x27;J'espere que dans les Matieres suivantes où j'ay recueilly tout ce qu'il y a de plus curieux et de plus agreable dans la Nature, le Lecteur trouvera non seulement des sujets capables de satisfaire sa curiosité, ou de luy donner quelque nouvelle connoissance: mais encor dequoy former des entretiens et des discours solides sur les veritez les plus necessaires et les plus importantes.

^{&#}x27;Mais avant de passer outre, il faut que j'advertisse mon Lecteur, de faire reflexion sur le Tiltre de cét Ouvrage, et de remarquer qu'il y a difference entre la Matiere d'un Entretien, et un Entretien ou Discours composé[. P]ar exemple Monsieur du Chesne a fait Imprimer en plusieurs Volumes diverses Pieces ramassées et Memoires, qui peuvent servir à l'Histoire de France; mais il n'a pas fait l'Histoire de France. De mesme j'ay ramassé en François de Philosophe et en mesmes termes plusieurs Matieres de divers Autheurs, telles que je les ay trouvées pour servir à la conversation et à l'entretien; mais je n'ay pas fait des Discours composez et estudiez pour la liaison, ou pour le langage.' Le Voyageur curieux qui fait le tour du monde. Avec ses matieres d'entretien qui composent l'histoire curieuse. Par le Sr le B., 2 vols (Paris, 1664).

to scholar-courtiers, to *bürgerlich* (or even aristocratic) bureaucrats in the court administrations of the developing absolutist states, as well as to nonfunctionary urban burghers, enabling them to act prudently in the public or private sphere. So-called *galant* theorists such as Christian Thomasius and Christian Weise contrasted such *politisch* knowledge with pedantry, by which they largely meant scholastic, metaphysics-based systems of knowledge which were taught in Latin in traditional universities. Frühsorge has demonstrated that this *politisch* knowledge was often called *curieus*, and that it was sometimes broken up into alphabetically ordered fragments, for example in lexicons. The preface to one very successful *Lexicon of the Curious and Real* – which contained entries on many disciplines and skills, such as physics, medicine, mechanics, building, navigation – set out its epistemological premises clearly. A discipline can be presented using two methods:

With the systematic method the material hangs together; its pieces are presented in such an order that they follow on from each other.

By contrast, with the alphabetical method nothing hangs together; instead, all the knowledge is ripped up into small pieces and presented, without connections, in a sequence determined by the twenty-four letters of the alphabet.¹⁹

Here are remarkable echoes, once again, of the vision of fragmented knowledge sketched in the different context of natural philosophy by Boyle and Fontenelle. Yet whereas those two academicians envisaged at least the future possibility of the 'pieces' becoming a whole, here the whole is being enthusiastically dismantled in the service of immediate, practical actions of many kinds. The readership of this lexicon is *die curieuse Welt*: 'we would like to investigate ... how the curious world came by this alphabetical method.'²⁰ Two explanations are given: first, the amount of knowledge available has proliferated, especially in the vernacular; secondly, 'the current age has such curiosity, that each person wants to know everything or, at least, something about everything.'²¹ This subject-oriented curiosity has produced curious objects of knowledge in the image of its own desire, that is, as selective bits rather than as a whole. Opponents of the culture of curiosities likewise associated curiosity with this kind of fragmentation: one argued that the

See Frühsorge, Der politische Körper: Zum Begriff des Politischen im 17. Jahrhundert und in den Romanen Christian Weisens (Stuttgart, 1974) (largely on the private sphere); W. Kühlmann, Gelehrten-Republik und Fürstenstaat: Entwicklung und Kritik deutschen Späthumanismus in der Literatur des Barockzeitalters (Tübingen, 1982) (largely on the public, civic sphere).

¹⁹ [Paul Jakob Marperger], *Curieuses und reales Natur- Kunst- Gewerck- und Handlungs-Lexicon* (Leipzig, 1727), preface by Johann Hübner,) (2^r; first published in 1712; original German quoted in Frühsorge, *Der politische Körper*, 203 (see also 202–5).

²⁰ 'wir wollen ... nachforschen, wie denn die curieuse Welt auf diese Alphabetische Methode gekommen sey?' ()(3^r).

^{&#}x27;endlich führet das jetzige Seculum eine solche Curiosität bey sich, daß ein iedweder alles, oder doch zum wenigsten von allem etwas wissen will', ()(3°; quoted in Frühsorge, *Der politische Körper*, 203.

relatively new genre of the periodical fostered superficial, unsystematic knowledge that he called 'ungrounded curiosity'.²²

As these examples show, the curiosity-collecting metaphor often had an epistemological, social or political dimension; in other cases it had a moral one. But it was not necessarily tied to any such dimension or programme, which is why I am calling it a discursive tendency or a semantic thread rather than, say, an epistemological paradigm. The examination of the relations between some of the discourses in this culture of curiosities is already underway, thanks to Barbara Benedict, Lorraine Daston and others.²³ But many connections between the discourses listed above still remain to be investigated. And those connections have not usually been studied through exclusive focus on the language of curiosity, in all of its richness, contestedness and contradictoriness.²⁴ If the two most influential modern histories of early modern curiosity tell such different stories – Hans Blumenberg's, in which the legitimation of curiosity ushered in modernity, and then Pomian's, in which the reign of theology was succeeded first by that of curiosity (especially among collectors) and then by the reign of science – that is partly because each privileges just one of the two discursive tendencies that I have outlined. For Blumenberg, curiosity mainly involves narrating (since it was a vice or virtue that was thought to be followed by good or bad consequences), whereas for Pomian it mainly involves collecting.25 Such grand narratives, however

^{&#}x27;Doch ich zweiffle fast, ob diese Beweiß-Gründe bey der itzigen Zeit, da man solche ungegründete Curiosité für einen Character eines hohen tugenhafften Gemüthes hällt, durchdringen werden': [Marcus Paul Huhold], Curieuse Nachricht von denen heute zu Tage grand mode gewordenen <code>J[ou]rnal-Quartal-und Annual-Schrifften</code> ([Jena], 1716; 1st edn 1715 or earlier), 12.

B. Benedict, Curiosity: A Cultural History of Early Modern Inquiry (Chicago and London, 2001); B. Beugnot, 'La curiosité dans l'anthropologie classique' in U. Döring, A. Lyroudias and R. Zaiser (eds), Ouverture et dialogue: Mélanges offerts à Wolfgang Leiner (Tübingen, 1988), 17–30; L. Daston, 'Neugierde als Empfindung und Epistemologie in der frühmodernen Wissenschaft' in A. Grote (ed.), Macrocosmos in Microcosmo: Die Welt in der Stube. Zur Geschichte des Sammelns 1450 bis 1800 (Opladen, 1994), 35–59; L. Daston, 'The Moral Economy of Science', Osiris, 10 (1995), 2–24; Daston and Park, Wonders, esp. 231 and ch. 8; Frühsorge, Der politische Körper, 193–205; H. Merlin, 'Curiosité et espace particulier au XVIIe siècle' in Jacques-Chaquin and Houdard, Curiosité et 'libido sciendi', i, 109–35; K. Whitaker, 'The Culture of Curiosity' in N. Jardine, J. A. Secord and E. C. Spary (eds), Cultures of Natural History (Cambridge, 1996), esp. 75.

This is attempted in Kenny, *The Uses of Curiosity*, Section 3. On the early modern semantic shifts in the 'curiosity' family of terms, see N. Kenny, *Curiosity in Early Modern Europe: Word Histories* (Wiesbaden, 1998); however, that study does not aim to contextualise them in terms of the period's discourses and institutions. For a language-based study of the meanings of 'curiosity' in one text from the culture of curiosities – Antoine Furetière's *Dictionnaire universel* (1690) – see A. Blair, 'Curieux, curieusement, curiosité', *Littératures Classiques*, 47 (2003), 101–7. Several studies have distinguished between the subject- and object-oriented senses of 'curiosity', but only sporadically: see Benedict, *Curiosity*; Beugnot, 'La curiosité', 21; Daston, 'Neugierde', esp. 35–6; Daston, 'The Moral Economy', 18; W. Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton, 1994), 314–18.

²⁵ Blumenberg, Der Prozeß der theoretischen Neugierde (4th edn; Frankfurt-Main, 1988); Pomian, Collectionneurs.

fruitful, cannot take account of the complexity of ordinary language. They have to ignore or play down those semantic strands which do not suit them. For example, Christoph Daxelmüller's study of curiosity in early modern German universities and learned societies seeks to interpret those institutions in the light of Blumenberg's narrative, but can only do so by denigrating some of the 'curiosity' family's connotations (such as 'odd', 'sensational') as degenerate offspring of its supposedly 'true' connotations (such as 'rational', 'empirical', 'experimental'), thereby privileging those meanings that are conducive to the narrating tendency (an impetus leading to progress), as opposed to the collecting tendency (a non-progressive accumulation of sensational facts).²⁶ While the division of curiosity into 'true' and 'degenerate' meanings is here particularly explicit, it is also the implicit precondition of all grand narratives of curiosity. Blumenberg has to sideline more early modern meanings of curiosity than does Pomian, which itself indicates how prominent was the curiosity-collecting thread in the period.²⁷ Blumenberg's 'theoretical curiosity' and Pomian's 'culture of curiosity' can certainly both be grounded in the early modern terminology of curiosity, but Blumenberg has to look among, say, members of the Académie des Sciences – such as Fontenelle or Pierre-Louis Moreau de Maupertuis²⁸ – while Pomian has to look mainly among collectors. Yet these two critical constructions become less helpful when they are understood – as they have often been – as describing not specific discourses (of academicians or of collectors, for example) but rather the whole of early modern discourse. Even the 'culture of curiosity', as described by Pomian, was, as he is aware, certainly not ubiquitous within early modern discourse, nor even within discourse on curiosity.

If, on the other hand, one studies the ordinary language of curiosity in all of its messiness, instead of trying to define anything such as an early modern 'concept' of curiosity, then the 'curiosity' family of terms is revealed to be a crucial medium within which anxieties about the shape of knowledge were played out, for example through the tension between the discursive tendencies of collecting and narrating. Perhaps no other family of terms mediated more between those two tendencies, by encapsulating them both, than 'curiosity'. ('Rarity', for example, was exclusively on the side of objects: it was not a motor of narratives).

Daxelmüller's decontestation of certain meanings of *curiositas* is intended to clarify what the term meant in one early German academy devoted to

^{&#}x27;Curiositas meint in erster Linie den menschlichen Wissens- und Forschungsimpetus; spätere Degenerationen des Begriffs erweisen sich als sekundäres Missverständnis', C. Daxelmüller, Disputationes curiosæ: Zum 'volkskundlichen' Polyhistorismus an den Universitäten des 17. und 18. Jahrhunderts (Würzburg, 1979), 155.

²⁷ See the persuasive critique of Blumenberg in Pomian, 'Curiosity and Modern Science' in *Nouvelles curiosités/New Curiosities* (Digne-les-Bains, 2003), 6–26 (14–15).

²⁸ Blumenberg, *Der Prozeß*, 219–330 at 303 n. 307.

the study of nature. Let me return to that same academy as the first of a few selected examples that will enable me to investigate, for the remainder of this essay, how one of the discourses within the culture of curiosities – the non-university study of nature – was often shaped as a metaphorical collecting of curiosities, but also how that shaping was subject to constant revision and contestation, as becomes most apparent if one focuses on its ordinary language rather than trying to tidy it up into a 'concept'.

The 'Academy of those curious about nature' (Academia naturæ curiosorum) was one of several new learned societies to shape nature (and art) into curiosities and investigators into curious people. Founded in Schweinfurt in 1652, it was initially for physicians only, aiming to advance medicine and ancillary subjects, not by holding meetings but by encouraging and vetting the production of monographs.²⁹ Its 'curious' label sent out the signal that the academy's aims (the advancement – or collection – of knowledge) were those of *curiosi* elsewhere in Europe rather than being primarily national, imperial or confessional. The main vehicle for its international profile was its journal, the *Miscellanea curiosa* (launched in 1670), the first learned journal in Germany (Fig. 3.1). What did *curiosa* mean in this title? One member gave his answer in a letter urging the editors to verify

whether [prospective articles] are curious cases; otherwise these *Ephemerides* would be a heap of medical cases which were already sufficiently known here and there. If there was nothing rare, then the *Ephemerides* would vegetate: they must contain and make public something curious and new about all the topics which they treat ...³⁰

This alignment of the 'curious' with the 'rare' and the 'new' is confirmed by the periodical itself, which was full of monstrous, marvellous, strange medical cases and natural objects.³¹ *Miscellanea curiosa* denotes a collection, a 'heap' (here preferably a dynamic one renewed by novelty) of 'curious cases' or (according to the periodical's first title-page) 'observations', each of which was typographically distinct from the rest and, for the most part, between one and five sides long. As Daston and Park have shown, in *early* academician circles such 'curious cases' could circulate all the more easily because they did not have to be attached to universals and fundamentals.³²

On this academy, see Daxelmüller, *Disputationes curiosæ*; R. J. W. Evans, 'Learned Societies in Germany in the Seventeenth Century', *European Studies Review*, 7 (1977), 129–51 (135–9); K. Müller, 'Zur Entstehung und Wirkung der Wissenschaftlichen Akademien und Gelehrten Gesellschaften des 17. Jahrhunderts' in H. Rössler and G. Franz (eds), *Universität und Gelehrtenstand* 1400–1800 (Limburg-Lahn, 1970), 127–44 (138–9); R. Winau, 'Zur Frühgeschichte der Academia Naturæ Curiosorum' in F. Hartmann and R. Vierhaus (eds), *Der Akademiegedanke im* 17. *und* 18. *Jahrhundert* (Bremen and Wolfenbüttel, 1977), 117–37.

³⁰ Christian Mentzel, original German quoted in Winau, 'Zur Frühgeschichte', 129.

³¹ See Evans, 'Learned Societies', 137.

³² Daston and Park, Wonders, ch. 6.

College, Oxford.

MISCELLANEA CURIOSA,

EPHEMERIDUM

MEDICO-PHYSICARUM

GERMANICARUM

ACADEMIÆ

NATURÆ CURIOSORUM

ANNUS NONUS

DECIMUS,

Annor. M. DC. LXXVIII. & M. DC. LXXIX.

Continens

Celeberrimorum Virorum,

Tum Medicorum, tum aliorum Eruditorum in Germania,

& extra cam

OBSERVATIONES

MEDICAS, PHYSICAS, CHYMICAS,

Nec non

MATHEMATICAS

Ciim

EPISTOLA BUCCINATORIA ADEPTORUM

in Chemia Philosophorum ad Universos Europa Curiosos.

Aliis g. APPENDICE comprehensis.

VRATISLAVIÆ & BREGÆ,
Sumtibus COLLECTORUM,
Typis JOHANNIS CHRISTOPHORI JACO
ANNO M. DC. LXXX.

3.1 Title-page of Academia naturæ curiosorum *Miscellanea curiosa* (1680).
Reproduced by kind permission of the Provost, Fellows and Scholars of The Queen's

However, 'curious' was all the more resonant a label for the German institution because it did not connote *only* 'a collection of short, free-floating fragments'. The academy gave it several meanings, whose links were alogical or even contradictory. The term shaped some discursive objects as 'short',

others as 'long'. For, in accordance with the term's still influential etymon (cura), curiosi were 'diligent', as was emphasised by the academy's motto ('Nunquam otiosus',33 'Never idle', presumably a dig at the self-styled 'Otiosi' of Della Porta's earlier Academia curiosorum hominum in Naples) (Fig. 3.2).34 One discursive implementation of that 'diligence' was not just the collecting of 'curious cases' in the Miscellanea curiosa but also, by contrast, the painstaking, systematic description of a single natural object in academy monographs, such as Cynographia curiosa (on the dog), Lagographia curiosa (on the hare), Lilium curiosum (on the lily) or Oologia curiosa (on the egg), usually two hundred to three hundred pages long.35 The liminaries spelled out that 'curious' here denoted, echoing *cura*, the monograph's 'thoroughness' and 'ac*curacy*' ³⁶ – the object-oriented equivalents of the subject-oriented 'diligent' sense. Not any old 'thoroughness' was denoted, but specifically those modes of 'thoroughness' imposed by the academy's constitution, for monographs had to describe an object's names and synonyms, its manner of generation, its natural location, its species, the effects of remedies derived from it, and so on.³⁷ Entitled *curiosa* or not, monographs were usually advertised as conforming to this norma or 'pattern': for example, the author of one on scurvygrass declared 'I am calling that [scurvygrass] "curious", not because it is curiously polished, but because it is being described according to the PATTERN AND RULE LAID DOWN BY THE ACADEMY OF THOSE CURIOUS ABOUT NATURE.'38 However, these institutional roots of 'curious' could easily wither from view if such scurvygrass was transplanted abroad. An English translation of this monograph retained the cura sense: 'it is both a learned and accurate work, so that it may deservedly be called Cochlearia curiosa.'39 Yet there is no longer any mention of the German academy, so for this translation's readers, this work was not 'curious' in the sense that it followed the rules of a particular institution. So, even when 'curious' stayed within a single discourse – here naturalist – it could never be apprehended in purely 'typical' form, but was always partly embedded in local conditions.

If this academy's 'curious' writing about nature could be either 'long' or 'short', it could also be either 'useful' or 'useless', depending on who you

³³ See Müller, 'Zur Entstehung', 138.

³⁴ On that academy, see M. Ornstein, The Rôle of Scientific Societies in the Seventeenth Century (Hamden and London, 1963), 74.

³⁵ C. F. Paullini, Cynographia curiosa seu Canis descriptio (Nuremberg, 1685) and Lagographia curiosa, seu Leporis descriptio (Augsburg, 1691); M. Tiling, Lilium curiosum, seu Accurata lilii albi descriptio (Frankfurt-Main, 1683); C. F. Garmann, Oologia curiosa (Zwickau, [1691]).

³⁶ Cf. Tiling's sub-title.

Winau, 'Zur Frühgeschichte', 118.

³⁸ 'CURIOSAM voco illam, non quòd curiosè expolita sit, sed quia ad NORMAM ET FORMAM ACADEMIÆ NATURÆ CURIOSORUM est tractata.' V. A. Moellenbrock, *Cochlearia curiosa* (Leipzig, 1674),):(3^v).

³⁹ Moellenbrock, Cochlearia curiosa: or the Curiosities of Scurvygrass, trans. T. Sherley (London, 1676), A3^v.



3.2 Fold-out frontispiece of Academia naturæ curiosorum *Miscellanea curiosa* (1680). Reproduced by kind permission of the Provost, Fellows and Scholars of The Queen's College, Oxford.

asked. The first volume of the *Miscellanea curiosa* described the academy's three goals as 'the virtuous, the curious, the useful',⁴⁰ thereby claiming if

⁴⁰ 'Honestum, Curiosum, Utile': Miscellanea curiosa medico-physica academiæ naturæ curiosorum sive Ephemeridum medico-physicarum germanicarum curiosarum annus primus (Leipzig, 1670), 8.

not synonymy then at least compatibility between these three, overturning (like much naturalist discourse of the period) the centuries-old *antagonism* between curiosity and utility. However, that antagonism could always be easily reinstated, as when Leibniz attacked this academy's monographs for being 'of curiosity rather than of practical applicability' and for 'following a method which was better suited to establishing a repository than to providing openings'.⁴¹ He was thereby rejecting the academy's 'curious' *norma* because it was stuck in a collecting tendency ('repository') rather than a narrating one (creating 'openings' leading to future new knowledge). By contrast, Leibniz's own Prussian Academy (founded in 1700), which was to include focus on agriculture, manufacture, commerce, and so on, would avoid 'useless curiosities' and 'mere curiosity'.⁴² This is one small example of the constant, agonised debates about the 'usefulness' or 'uselessness' of 'curious' objects of naturalist (and indeed other) discourse.

The naturalist metaphorical collecting of curiosities changed even more when it spread to the more popular end of the book market. Many compilations aimed to popularise the findings of academies. In France, l'abbé Bougeant initiated a sequence of volumes of *Curious Observations on All Parts of Physics, Extracted and Collected from the Best Memoirs*. His preface explained that the *Philosophical Transactions*, the *Acta eruditorum*, the publications of the Académie des Sciences, and so on are

full of curious observations on physics. However, these excellent works can barely be found except in libraries, being very long and expensive. And, because the most curious observations which they contain are necessarily mixed in with other material, less interesting or too advanced for most readers, few people read them. That is what made me think of giving the public a collection of the most curious observations, which I had initially extracted from these Memoirs for my own private use.⁴³

Thus, as 'curious' moves outside learned societies, it means not only 'new', 'rare', 'empirical', sometimes 'experimental', and 'collected' but also 'selected'. 44 While this meaning is added, others are subtracted: ditching the standard 'beautiful' connotation of 'curious', Bougeant admits that his 'curious observations'

⁴¹ Original French quoted in Winau, 'Zur Frühgeschichte', 129.

⁴² 'bloße Curiosität', 'unnützer Curiositäten' (quoted in Winau, 'Zur Frühgeschichte', 129). See Ornstein, *Rôle*, 177–97.

^{&#}x27;remplis d'observations curieuses sur la Physique. Cependant ces excellens ouvrages ne se trouvent gueres que dans les Bibliotheques; parce qu'ils sont fort longs, et qu'ils coutent cher; et comme les observations les plus curieuses y sont necessairement mêlés avec d'autres matieres moins interessantes, ou qui passent la portée de la plupart des Lecteurs, ils ne sont lûs que de peu de personnes. C'est cette consideration qui m'a fait naître la pensée de donner au Public un Recueil des plus curieuses observations, que j'avois d'abord tirées de ces Memoires pour mon utilité particuliere.' [Guillaume-Hyacinthe Bougeant], *Observations curieuses sur toutes les parties de la physique, extraites et recueillies des meilleurs Mémoires*, 3 vols (Paris, 1730–37), i, aii^{r-v}. Appeared from 1719 onwards. Probably continued by Nicolas Grozelier.

⁴⁴ On the 'selected' connotation of curiosity, see Kenny, Curiosity in Early Modern Europe, 140.

are not the most 'beautiful' available, since the latter are also often the most difficult (i, [aiii^v]–[aiv^r]). Further cutting the 'curious' to the cloth of his digest genre, Bougeant rejects the 'long' for the 'short' connotation of 'curious': he has abbreviated articles taken from learned journals to make them accessible 'to people whose occupations or particular taste prevents them from knowing physics in depth and yet who are delighted not to be entirely ignorant of it and to know at least, so to speak, the news of what's going on in the Republic of Sciences.'45 More 'ungrounded curiosity', in other words. Bougeant sees his sources as constituting primarily not a linear narrative (such as that which will retrospectively be made into the 'Scientific Revolution') but rather a spatial landscape from which he can collect endlessly, since 'the land of observations is vast and fertile enough to supply material to satisfy [my reader's] curiosity.'46 This fantasy of a gratifying symmetry between the 'curiousness' of discursive objects ('observations') and the 'curiosity' of reading subjects is characteristic of the 'culture of curiosities', not just in naturalist discourse but also among, say, antiquaries, who described themselves as satisfying their 'curiosity' in the similarly spatialised 'vast and curious land of antiquity'.47

Bougeant's 'curious observations' – like those in many digests and even learned journals – were contested, attacked as incoherent and superficial. His 'collection' ('Recueil') often omits causal explanations for the 'observations', even where they were given by his sources. To justify this, he even quotes the sceptical words of Fontenelle with which I began (iii, [aii^v]–[aiv^r]). Yet his 'curious' fragments were allowed to float free of causal explanations for commercial as well as epistemological reasons, since they could be enjoyed by far more people when not attached to a demanding philosophical system.

Exactly what was meant by presenting naturalist knowledge as a collection of curiosities varied not only from context to context but also within a single work, since the polysemy of 'curious' enabled writers and publishers tacitly to exploit on a title-page, for publicity purposes, connotations of the term which were not always philosophically justifiable or respectable (such as 'new', 'odd', 'rare', 'polished'), before then disavowing them in the preface. Hence the numerous prefaces which explained, often with this bad faith, what the term 'curious' in the work's title did and did not mean. We have encountered some examples among the monographs of the 'Academy of those curious about nature', such as the scurvygrass treatise and its English translation. Beyond

^{&#}x27;aux personnes à qui leurs occupations ou leur goût particulier, ne permet pas de sçavoir la Physique à fond, et qui sont cependant bien aises de ne la pas ignorer tout-à-fait, et de savoir du moins, pour ainsi dire, les nouvelles de ce qui se passe dans la Republique des Sciences' (i, [aiii^{r-v}]).

⁴⁶ 'le Pays des Observations est assez vaste et assez fertile pour fournir de quoi satisfaire à sa curiosité' (ii, aiii^v).

^{&#}x27;dans le pays vaste et curieux de l'Antiquité.' J. Spon, Recherches curieuses d'antiquité (Lyon, 1683), [a4^v]; see also 1.

that institution, another example is the *Physica curiosa* of the Jesuit Kaspar Schott (1662), who blatantly exploited the 'rarity' connotation of 'curious' on the title-page ('rara, arcana, curiosaque') before then undermining that very connotation in the preface, which claimed that readers would find, to their surprise, that these 'wondrous and curious things [*mira* ... *curiosa*]' – angels, demons, monstres, spectres, meteors, and so on – were in fact 'common [*Trita*]' in nature.⁴⁸

Belatedly coming clean about curiosity in this way became a *topos*: many a preface picked its way tortuously through wanted and unwanted connotations, endlessly reshaping curiosity. Marton Szentivanyi, another of the numerous Jesuits to package naturalist knowledge as 'curious' (he taught at the college in Tirnau, Hungary), periodically published, under the running title *Very Curious and Select Miscellany of Various Sciences*, volumes of his 'dissertations' on physics, mathematics, astronomy, and so on. He explained to his dedicatee that his contents were indeed

curious, very curious, yet neither playful nor vain; curious because they are rare, because they are far removed from common knowledge, not because they are collected all at one go, but rather because they are selected one by one from the most select authors; not, admittedly, because they are wholly new or unheard-of, but because they have been arranged and collected with great labour from a huge number of extremely rare books in distinguished, famous libraries.⁴⁹

Szentivanyi first – even at this late date – feels obliged to repudiate the centuries-old *vana curiositas* connotation, and then feels obliged in all honesty to drop any claims to the 'new' and 'unheard-of' connotation, before finally settling for 'selective' (which is here, as ever – and as he spells out – the deluxe version of the 'collecting' connotation).

Although the culture of curiosities had a powerful presence in non-university discourses on nature and art, even in its heyday it was never ubiquitous in those discourses. By the 1730s its presence in them was much weaker. Not that curiosity had disappeared from them. Rather, its role in them was changing: subject-oriented curiosity was now reasserting itself over the decades-long hegemony of curiosities. For example, in 1739 an anonymous prospectus, *Fruitful Curiosity*, was printed in Paris to raise finances for a projected series of experimental demonstrations involving aerostats – vessels which might fly, having been emptied by a vacuum pump or other means.⁵⁰

⁴⁸ K. Schott, *Physica curiosa, sive Mirabilia naturæ et artis* (Würzburg, 1667; 1st edn 1662), i, d3^r.

⁴⁹ 'curiosa, curiosiora, non tamen aut ludicra, aut vana; verùm ex eò curiosa, quia rara; quia à vulgi notitia abstrusa, et remota, nec obiter collecta, sed ex selectissimis Authoribus singulariter selecta; et licèt nec nova omnino, nec inaudita, tamen non parvo labore, nec nonnisi ex ingenti librorum rarissimorum copia, præcipuisque ac nominatissimis Bibliothecis concinnata, et accumulate.' M. Szentivanyi, *Curiosiora et selectiora variarum scientiarum miscellanea*, 4 vols (Tirnau, 1689–1709), i, dedication.

⁵⁰ La Curiosité fructueuse (Paris, 1739), [1].

The prospectus was addressed not to experts but to potential backers, the 'interested curious [curieux intéressés]', who, having purchased it for 24 sols, would enjoy up to six free entries to the eventual demonstrations (should they materialise: I do not know if they did); they would also have first place in the queue to join the royal-supported fundraising company which the author hoped to found to produce the machines (38–40). Not until a note at the end of this prospectus, following its 41-page sales pitch, is the reader told that the proposed experiments concern aerostatics: even then, the precise technique proposed remains under wraps.

That long sales pitch is entirely on the two motives for the experiments: interest and curiosity. Yet three related factors now differentiate it from the culture of curiosities. First, far from celebrating curiosity unequivocally, the prospectus *reintroduces* the centuries-old moral qualms about it. (So much for the general drift of Blumenberg's narrative.) Secondly, the prospectus ignores the object-oriented senses of 'curiosity' (which would surely have been prominent if it had been written thirty years earlier), just as the *Encyclopédie*, a few years later, tried to exclude them from proper philosophical curiosity.⁵¹ Thirdly, the curiosity-collecting tendency is displaced by the curiosity-narrating tendency.

Curiosity is here primarily the motor of two potential narratives, one happy, the other unhappy. The difference between the two lies in whether curiosity is harnessed to interest (understood as the commercial and utilitarian self-interest of society as a whole). If curiosity is *not* harnessed to interest, then our projects get snarled up in unhappy narratives ('Histoires'), as the fate of Pandora and others shows (8–9). On the other hand, if we are curious because it is in our interest to be so, then we will be protagonists in a happy narrative stretching into the future:

the curiosity of the physicist, the mechanist, the architect, and of even the least craftsman is usually aimed at perfecting their art by perfecting themselves; this produces universal benefit which is all the more perpetual because, far from diminishing, it can only go on increasing, for the good of posterity.

Such are the *Curiosities* which can rightly be called *Fruitful* ...⁵²

On the other hand, the collecting of curiosities is implicitly condemned. Concerning the curious traveller, the author asks: 'What? Would he really have wanted to impose upon himself all that travel and risk if it was merely

On curiosity in the *Encyclopédie*, see Kenny, *Curiosity in Early Modern Europe*, 74–81; Pomian, *Collectionneurs*, 155–62.

⁵² 'la Curiosité du Phisicien, du Mécanicien, de l'Architecte, et jusqu'à celle du moindre Artisan n'a d'ordinaire pour but, que la perfection de leurs Arts, en cherchant à se perfectioner eux mêmes, d'où il résulte un avantage universel, et d'autant plus perpétuel, que loin de diminuer, il ne poura jamais aller qu'en augmentant au profit de la postérité. Telles sont les *Curiosités* qu'on peut nomer à juste titre *Fructueuses* …' (22).

to satisfy his eyes through the diversity of objects offered up to them by the various climates in which he might find himself?'53 Many travel writers within the culture of 'curiosities' would surely have answered 'yes': they would have been satisfied with a landscape full of immediate 'curiosities', rather than with subsequent 'utility', as the reward for their 'curiosity'.

In similar vein, one can speculate that, if preceding proponents of aerostatic experimentation – who are listed at the end of the prospectus (43–4) – had been asked why they wanted to conduct such an experiment, some might have answered 'because it is curious', implying a match between their curiosity and the 'curiousness' of its object, characteristic of the culture of curiosities. (The list includes some who did often call their experiments 'curious', such as Johann Christoph Sturm and Pierre Le Lorrain de Valmont.) But the author of this prospectus inhabits a changed discourse: he never describes such experiments as 'curious', nor even as 'curious and useful', but as 'useful'.54 While this confirms Christian Licoppe's argument about the shift towards 'utility' in early eighteenth-century technological discourse in France,55 it certainly does not confirm any replacement of curiosity by utility. After all, even to describe as 'fruitful' the role of curiosity in happy narratives is still to invert a longstanding association between curiosity and fruitlessness.⁵⁶ Rather, what has disappeared here is the capacity of curiosity to encompass, in a cosy loop of gratification, both desire for objects of knowledge and yet also the objects themselves. The newly prominent partner in the terminological dance surrounding good knowledge of nature – alongside old partners such as 'utility' or more recent ones such as 'curiosity' – is 'interest', which in this prospectus, as in many other texts of the 1730s, is entirely good, just as curiosity had often been in secular discourse from the early seventeenth century onwards.⁵⁷ And just as curiosity had often seemed to be the dominant passion in the culture of curiosities – and even sometimes in university discourse – here it is 'interest' that is explicitly granted that status (4).

But, despite its changed shape and status, curiosity still plays a crucial role here in shaping knowledge, now not as a collection but as a narrative, an unfolding one in which the exploitation of nature through technology meets with ever-increasing success. Although the culture of curiosities and

⁵³ 'Quoi donc ne voudroit-il se doner tous ces mouvemens, et courir tous ces risques, que pour satisfaire ses yeux par la variété des objets que leur ofrent les divers Climats où il peut se trouver?' (17).

⁵⁴ For example, title-page, [43].

⁵⁵ C. Licoppe, La Formation de la pratique scientifique: Le Discours de l'expérience en France et en Angleterre (1630–1820) (Paris, 1996), ch. 3.

For example, a follower of Francis Bacon felt obliged to deny that his master's 'Experiments' were 'Curious and Fruitlesse'. W. Rawles, in F. Bacon, *Sylva sylvarum: or A Natural Historie* (London, 1626), A[1]^v.

⁵⁷ On the relation between curiosity and interest, see Frühsorge, *Der politische Körper*, 197–9; Kenny, *Curiosity in Early Modern Europe*, 143–55.

its collecting metaphor are loosening their grip on non-university naturalist discourse, curiosity retains its power to bind together a remarkable range of discourses and practices which are described here as being so many 'species of curiosity [especes de Curiosités]' (21), that is, manifestations of a single passion. Certainly, these discourses and practices are no longer bound together by dint of the similarities of shape between their curious objects; moreover, some discourses and practices that were previously familiar in contemporary summaries of the culture of curiosities – newspapers, book-collecting, antiquarianism – are now dropped. But the new version of the list is still long: it includes astronomy, geodesy, travel, ethnography, natural history, chemistry, botany, anatomy, physics, mechanics, architecture, crafts (11–22). Curiosity has changed shape, but it is still so rhetorically powerful that the prospectus's author believes that the best way of raising funds is to write about how curiosity operates in other disciplines, rather than to describe the actual experiments proposed.

Without disappearing entirely, the culture of curiosities and its collecting metaphor declined at different times and rates in different discourses. They gradually lost their capacity to bind together such a cluster of more or less mainstream discourses on knowledge. It could be argued that the kinds of curiosity discussed above were quite distinct from the vice that preachers and moralists continued to condemn as *curiositas*. However, while some in the early modern period agreed with that argument, others disagreed. What exactly curiosity was, what relations existed between its species or else between the meanings of the 'curiosity' family of terms, were highly contested questions at the time. To describe early modern curiosity as a 'concept' would risk ossifying those unresolved contestations, which were battles over the very shape of knowledge.

The New World collections of Duke Cosimo I de'Medici and their role in the creation of a *Kunst*- and *Wunderkammer* in the Palazzo Vecchio

Adriana Turpin

In *Il Riposo* of 1584, Raffaello Borghini used the word 'wonder' (*maraviglia*) to describe his reaction to the works of art commissioned and collected in late sixteenth-century Florence:

But of great wonder to see is a study in five distinct categories, where there are in good order ... small statues, of bronze and wax; and ... objects of hardstone of many sorts, vases of porcelain and rock-crystal, sea shells of various types, pyramids of precious stones, jewels, medals, masks, petrified fruits and animals and many new and rare objects from the Indies and from Turkey, which amaze.¹

Borghini's description conjures up an image of the diverse early modern collections known as *Kunst*- and *Wunderkammern*, famously defined by Samuel Quicchelberg in 1565 as a collection combining both man-made works of art (*artificialia*) and objects from nature (*naturalia*).² Detleff Heikamp has persuasively argued that New World artefacts, Borghini's 'new and rare objects from the Indies', were an indispensable part of the creation of the *Kunstkammer* through their association with 'scientific' curiosity and pure aesthetic pleasure.³ Indeed, the appearance of such objects in

¹ 'Ma di gran maraviglia à vedere è uno scrittoio in cinque gradi distinto, dove sono con bell'ordini con partite statue piccole di marmo, di bronzo di terra e di cera; e vi sono composte pietre fini di più forte, vasi di porcellana, e di christallo di montagna, conche marini di più maniere, piramidi di pietre di fran valuta, gioe, medaglie, maschere, frutte & animali congelati in pietre finissimi, e tante cose nuoue e rare venute d'India, e di Turchia che sanno stuprie chiunque le ramira.' R. Borghini, *Il Riposo*, facsimile edition (Milan, 1967), 12–13. All translations are my own unless otherwise stated. This description of the Villa Vecchietto outside Florence may reflect the ideals of the *stanzino* in the Palazzo Vecchio (see below) rather that the reality of Florentine collections. Several of the items to which Borghini refers, for example the petrified fruits, animals, new and rare objects, were not in either the inventory of the Gallery of San Marco or the *Tribuna*.

² S. Quicchelberg, Inscriptiones vel Tituli Theatri Amplissimi complectectentis rerum universitatis singulas materias et imagines eximias ... (Munich, 1565).

³ D. Heikamp, 'Il Nuovo Mondo' in M. Gregori and D. Heikamp (eds), Magnificenza alla Corte dei Medici: Arte a Firenze alla fine del Cinquecento (Florence, 2000), 399. Similar associations are made

the Medici collections, accompanied by a great variety of rare natural and man-made items, suggests that the traditional association of the *Kunst*- and *Wunderkammern* with exclusively northern collections requires modification.⁴ One of the broad questions with which this essay is concerned is the extent to which the Medici dynasty's approach to collecting, organisation and display in the mid-sixteenth century can be considered as similar to, or distinct from, the approaches of their northern contemporaries, Albrecht V in Munich and the Austrian Habsburgs.⁵ Focusing particularly on the collections of Cosimo de'Medici, First Grand Duke of Tuscany (reigned 1537–74), this essay explores how a supposedly seminal component of the *Kunstkammer* – artefacts from the New World – was arranged, classified and understood in a renowned Italian princely collection of the sixteenth century.⁶

The first shipments of New World gold and silver objects, feather works, textiles and turquoise masks were sent from the Americas by Cortes in 1519, arriving in Spain in 1520. They were subsequently put on public display in Toledo, Valladolid and Brussels. From their first arrival in Europe, New World objects were described in the language of the marvellous.⁷ In 1520, Albrecht

by C. Acidini Lucinat in 'The Treasures of the Medici: From Objects of Wonder to the Organisation of Knowledge' in C. Acidini Lucinat (ed.), *Treasures of Florence* (Munich and New York, 1997), 9–29. See also A. M. Massinelli, 'The Medici Collections at the Time of Cosimo I and Francesco I' in Acidini Lucinat (ed.), *Treasures of Florence*, 53–72. Masanelli describes Cosimo's study as a 'synthesis of both the humanist's private study ... and the eclectic *Wunderkammer*, where a whimsical collector could examine and enjoy his treasures.' I would like to thank Anna Maria Massinelli for her generosity in sharing her research and discussing this topic with me on several occasions.

- 4 The association of the *Kunst-* and *Wunderkammer* with north European collecting stems ultimately from J. Schlosser's classic study, *Die Kunst- und Wunderkammern der Spätrenaissance* (Leipzig, 1908). See also T. Da Costa Kauffman, 'From Treasury to Museum: The Collections of the Austrian Habsburgs' in J. Elsner and R. Cardinal (eds), *The Cultures of Collecting* (London, 1994), 137–46; B. Bukovinska, 'The Kunstkammer of Rudolf II' in E. Fucikova et al. (eds), *Rudolph II and Prague: The Court and the City* (Prague, London and Milan, 1997), 199–208. There is extensive evidence that collections combining *naturalia* and *artificialia* also preponderated in sixteenth-century Italy. See, for example, K. Pomian, *Collectors and Curiosities: Paris and Venice* 1500–1800 (Cambridge, 1990), 69–78.
- 5 On the Munich Kunstkammer (begun in 1563), see L. Seelig, 'The Munich Kunstkammer 1565–1807', in O. Impey and A. MacGregor, The Origins of Museums: The Cabinet of Curiosities in Sixteenthand Seventeenth-Century Europe (1st edn 1981, reprinted London, 2001), 101–19. The inventory of Ferdinand I (1568) has been published by K. Rudolph, 'Die Kunstbestrebungen Kaiser Maximilians II in Spannungsfeld zwischen Madrid und Wien', Jahrbuch der Kunsthistorischen Sammlungen in Wien, 91, 247–53. For the collections of Ferdinand II at Ambras, see 'Inventar des Nachlasses von Erzherzog Ferdinand II in Innsbruck (Ruhelust, alte Burg) und Ambras vom 30 May, 1596', Das Jahrbuch der Kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauss in Wien 1883–1918, VII, ii, 5556 and X, ii, 5556.
- ⁶ Given this essay's focus on princely collecting there is not space to consider the important sixteenth-century collections amassed by Italian apothecaries or natural historians, on which see, for example, P. Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley, 1994).
- ⁷ See A. Shelton, 'Cabinets of Transgression: Renaissance Collections and the Incorporation of the New World' in Elsner and Cardinal, *Cultures of Collecting*, 193–4. For a complete study of the history of surviving Mexican objects in Vienna and an excellent account of Cortes' treasures,

Dürer recorded his wondrous response to the Aztec treasures presented to Charles V (then on display in Brussels), writing:

In all my life I have seen nothing that made my heart rejoice so much as these things. Here I have found wonderful, costly things and I have marvelled at the subtle ingenuity of people in strange lands.8

Confronted by previously unknown objects, European collectors faced the pressing problem of how to classify cultural artefacts from the New World.9 Such objects required assimilation, sometimes even modification, by collectors, with the result that 'nothing remained of their original meaning but [they] were included in collections less as examples of alien cultures than as further examples of what the Europeans considered important in terms of wonder.'10 As a result, New World objects were frequently classified and understood according to the ingenuity of their manufacture (and hence that of their makers), or their unusual materials, and not necessarily according to their inherent foreignness. Peter Martyr, for example, described his reaction to the first examples of feather-work from the Americas to arrive in Seville in the following terms: 'I am at a loss to describe the aigrettes, the plumes and the feather fans. If ever artists of this kind have genius, then surely these natives are they.'11 Archduke Ferdinand I expressed similar sentiments in a letter of 1554: '... que son una de las coasas ene que mas el ingenio de los indios se muestra.' Use of the term ingenio (genius) to describe Indian work thus became part of

see C. Feest, 'Vienna's Mexican Treasures', Archiv fur Volkerkunde, 44 (1990), 1-54; K. Rudolph, 'Die Kunstbestrebungen Kaiser Maximilians II im Spannungsfeld zwischen Madrid and Vienna', Jahrbuch des Kunsthistorischen Museums Wien (1995), 169-70. See also Helmut Trnek, "Und ich hab all mein lebtag nichts gesehen, da mein hercz also erfrueret hat als diese ding." Exotica in Habsburgischen Kunstkammern, deren Inventare und Bestände' in W. Seiel (ed.), Exotica (Milan, 2000), 23–48.

H. Jantz, 'Images of America in the German Renaissance' in F. Chiappelli, M. J. B. Allen and R. L. Benson (eds), First Images of America: The Impact of the New World on the Old, 2 vols (Berkeley, 1976), i, 91–100 at 94, n. 7. Jantz's translation of *fremde* as strange rather than foreign is contrary to that provided by E. Panofsky in *The Life and Art of Albrecht Dürer* (4th edn, New Jersey, 1971), 209.

⁹ The scholarship on European responses to the New World is extensive. See, for example, W. Sturtevant, 'First Visual Images of Native America' in Chiapelli et al., First Images of America, i, 417-26; S. Greenblatt, Marvelous Possessions: The Wonder of the New World (Oxford, 1991); A. Pagden, European Encounters with the New World: From Renaissance to Romanticism (New Haven and London, 1995); B. Keen, The Aztec Image in Western Thought (Rutgers, 1996). On the collecting of works of art from the Americas, Africa, the Near and Far East in the sixteenth century, see Impey and MacGregor, Origins of Museums, in particular the essays by C. Feest, E. Bassani and M. Macleod, J. Ayers, J. Raby, O. Impey and R. Skelton for the collecting of non-European works; D. Heikamp and F. Anders, Mexico and the Medici (Florence, 1972); D. Heikamp, 'Mexicanische Altertümer aus süddeutschen Kunstkammern', Pantheon, 28, 3 (1970), 205–20.

¹⁰ Pagden, Encounters, 33. C. Feest presents a similar argument in 'European Collecting of American Indian Artefacts and Art', Journal of the History of Collections, 5, 1 (1993), 1-11. See also Pomian, Collectors, in which these objects are given a different status as 'semiophores', that is, 'collected not because of their practical value but because of their significance as representatives of the invisible, comprising exotic lands' (34–5).

Shelton, 'Cabinets of Transgression', 195. See also Keen, Aztec Image, 65.

a generic association between 'men from foreign lands' and the underlying meaning of *ingenio*, 'of its own place'.¹² However, while Martyr may have been at a loss for words, by assessing the language used to describe objects as they appear in the inventories of Cosimo's collection it is possible to tease out the various ways in which New World objects were identified, organised and displayed at a time when the private nature of the *studiolo* gave way to a more public display of an increasing number of wondrous artefacts.¹³

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Cosimo I's collection featured a wide variety of objects from outside Europe, today grouped together as *exotica*, including a number of items of New World origin. These items, along with European objects, were displayed in a study (*scrittoio*) and wardrobe (*guardaroba*) in the Palazzo Vecchio, today known as the Map Room, and were continuously reorganised throughout Cosimo's reign as the collection gradually expanded (Figs 4.1 & 4.2). This process of expansion and reorganisation continued during the reigns of his sons Francesco I (1574–87) and Ferdinando I (1587–1607), with parts of the collection housed in the *stanzino* of the Palazzo Vecchio, the gallery of the workshops at the Casino di San Marco, and the *Tribuna* – a room off the principal galleries of the Uffizi, which was begun by Francesco but completed by his brother. There is not space in this essay to consider the *naturalia* and *exotica* located outside the Palazzo Vecchio in the period concerned, though the creation of botanical gardens in Pisa and Florence and the menagerie of exotic animals in Florence were of considerable importance to Cosimo I and to both of his sons.

¹² Quoted in Rudolph, 'Die Kunstbestrebungen Kaiser Maximilians II', 170.

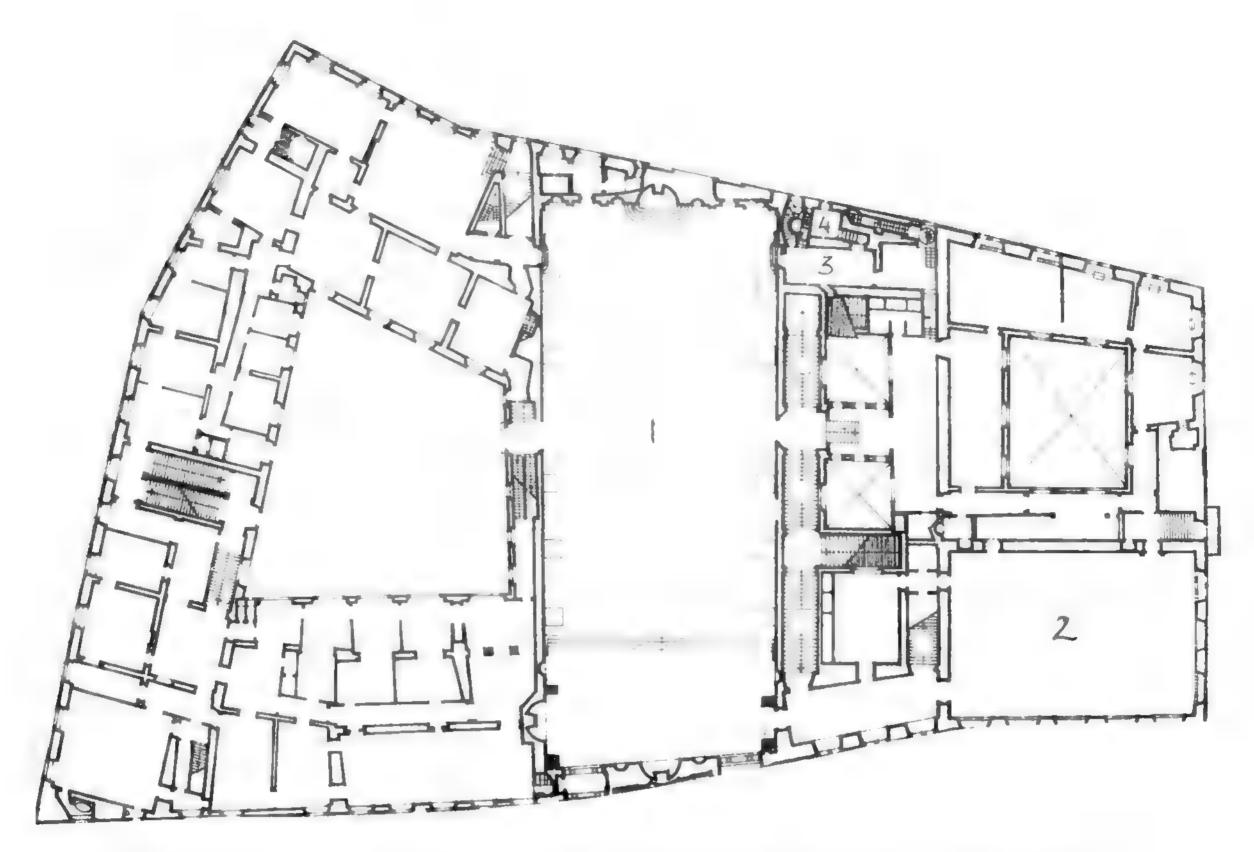
¹³ On the development of the *studiolo*, see W. Liebenwein, *Studiolo-Die Entstehung eines* Raumtypes und seine Entwicklung (Berlin, 1977); D. Thornton, *The Scholar in his Study: Ownership and Experience in Renaissance Italy* (New Haven and London, 1997).

On exotica in the Medici collections, see Heikamp and Anders, Mexico and the Medici; M. Scalini 'Oggetti rari e curiosi nelle collezioni medicee: esotica e naturlia', Antichita Viva, 35, 2–3 (1996), 59–67; Acidini Lucinat, 'Treasures of the Medici'; Gregori and Heikamp, Magnificenza alla Corte dei Medici. It is worth noting that the term exotica is not, to the best of my knowledge, used in Italy to describe objects until the eighteenth century. As early as 1548, however, Rabelais used the phrase 'exotiques et pérégrines' to describe natural and artificial objects from Asia and Africa. Rabelais, Pantagruel, IV, ii (1548): Œuvres de Rabelais (Paris, 1873), 16.

On these rooms, see E. Allegri and A. Cecchi, *Palazzo Vecchio e I Medici* (Florence, 1980), 80–83, 303–13, 323–47. The fullest accounts of the treasures of the Casino di San Marco are P. F. Covoni, *Don Antonio al Casino di San Marco* (Florence, 1893), and Massinelli, *Treasures of the Medici*.

On the Tribuna, see D. Heikamp, 'La Tribuna degli Uffizi come era nel Cinquecento', *Antiquità Viva*, 3 (1963–4), 11–30; A. M. Massinelli, 'Magnificenze Medicee', *Antologio di Belle Arte*, n.s., 35–8 (1990), 111–33.

¹⁷ See C. Lazzaro, 'Animals as Cultural Signs: A Medici Menagerie in the Grotto at Castello' in C. Farago (ed.) *Reframing the Renaissance: Visual Culture in Europe and Latin America* 1450–1650 (New Haven and London, 1995), 197–228.



4.1 Ground plan of the first floor of the Palazzo Vecchio showing 1) The Hall of the 500, 2) The Hall of the 200, 3) The *stanzino* of Ferdinand I (formerly Cosimo I's study and bedroom) and 4) The *Tesoretto*. Adapted from E. Allegri and A. Cecchi, Palazzo Vecchio e I Medici (Florence, 1980).

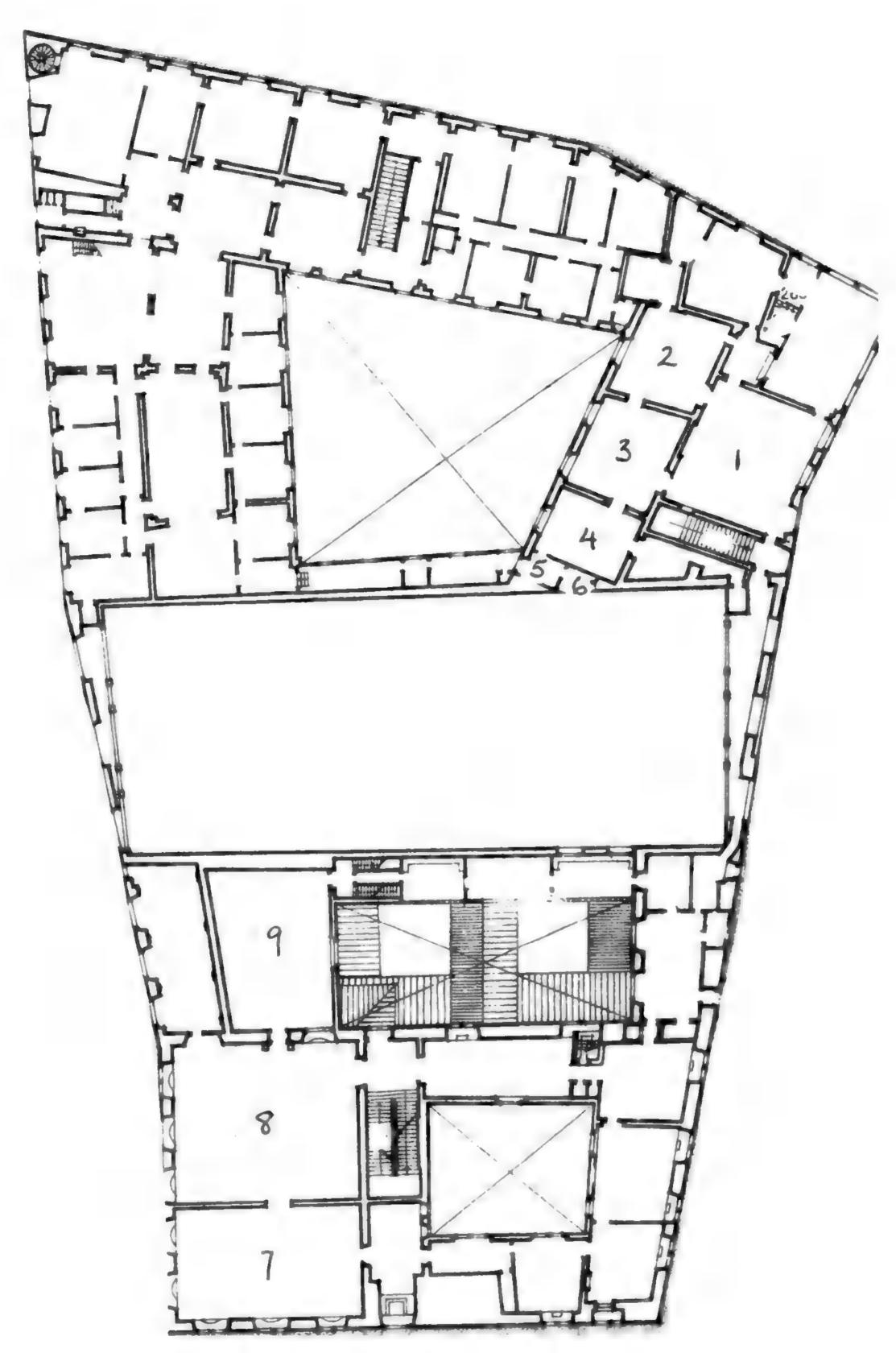
Extensive documentation survives, largely in the form of inventories, through which it is possible to trace the ordering and organisation of Cosimo's collection.¹⁸ While we should not assume that these inventories necessarily reflect Cosimo's personal attitude towards (or even intentions for) his collection, taken alongside the accounts provided by Giorgio Vasari and Vicenzo Borghini (Cosimo's artistic advisors), they represent a fundamental source for understanding how the New World objects were arranged and classified during the Duke's lifetime.¹⁹

According to the first inventory, taken in 1539, the Duke seems to have had no gold objects from the New World in his collection, only featherwork items (*penne d'India*) (Fig. 4.3), turquoise masks and a number of small hardstone animal heads.²⁰ Among the pieces listed were four breast-plates of

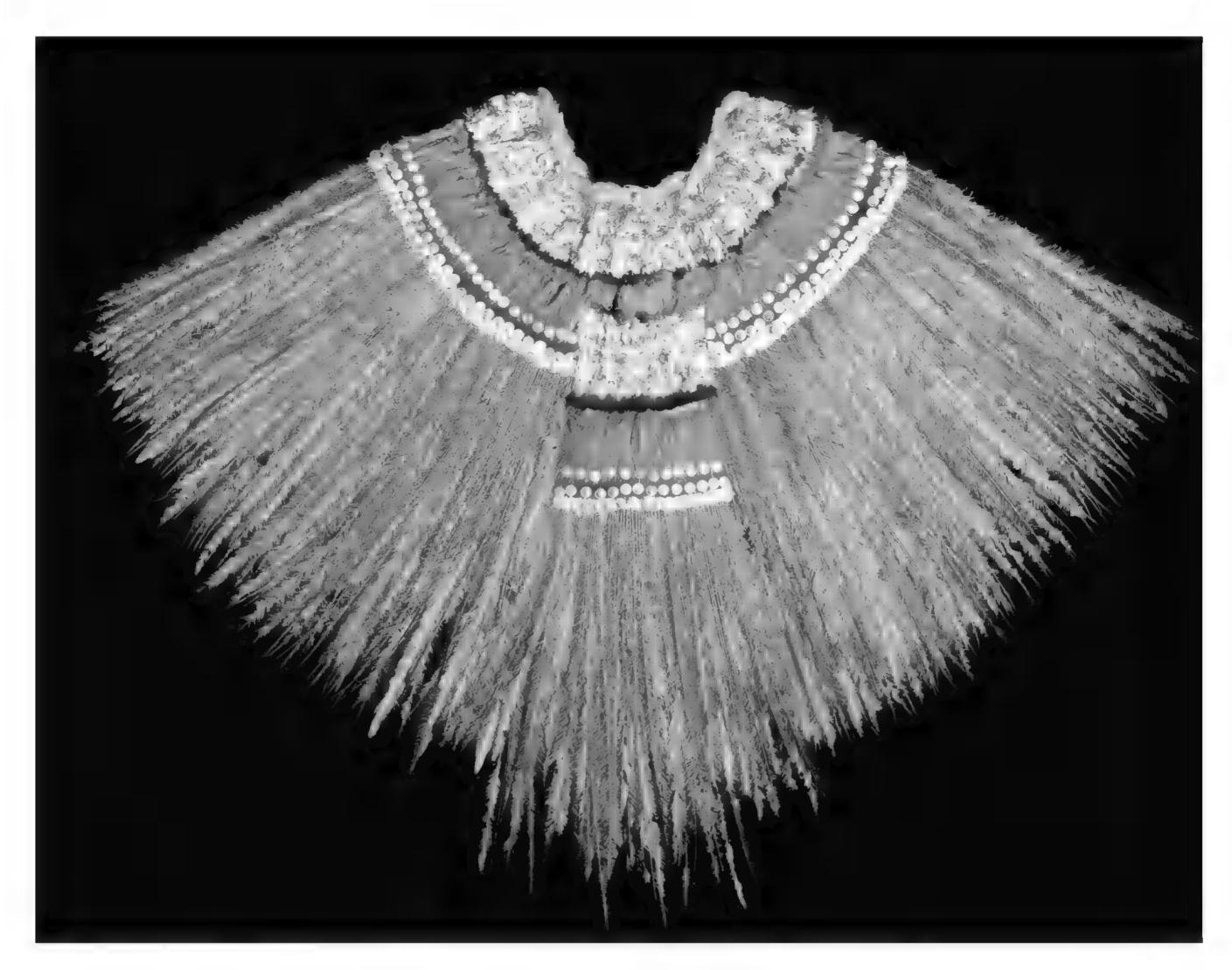
¹⁸ In using inventories to reconstruct Cosimo's collection I am adopting the approach taken by Seelig in 'The Munich Kunstkammer 1565–1807'.

¹⁹ For the purposes of this essay I have relied on K. Frey with H. R. Frey, *Der Literarische Nachlass Giorgio Vasari*, 3 vols (New York, 1982) and the transcripts of Cosimo's correspondence in the Medici Archive Project: http://www.medici.org.

See Heikamp, *Mexico and the Medici*, 34–7, for a list of items in the sixteenth- and seventeenth-century inventories. See also M. Scalini, 'Exotica in der Mediceischen Kunstkammer', *Jahrbuch des Kunsthistorischen Museums Wien*, 3 (2001), 132–6.



4.2 Ground plan of the second floor of the Palazzo Vecchio showing Cosimo's apartments: 1) The room of the Elements, 2) The Opi room, 3) The Jupiter room, 4) The Hercules room, 5) The *scrittoio* of Caliope, 6) The back staircase to the study, 7) The Audience room, 8) The room of Lilies and 9) The Map room. Adapted from E. Allegri and A. Cecchi, Palazzo Vecchio e I Medici (Florence, 1980).



4.3 Feather-work cape of the type owned by Cosimo de'Medici. Courtesy of Museum für Völkerkunde, Vienna.

Moresque feathers, ten small wheels, two feathered birds heads, two gowns of feathers, three small robes, four bunches of flowers made of Indian feathers and six costumes described as 'al indiana' made of black cloth.21 In 1553 there were a further four feather capes and a bedcover.²² It is notable that Cardinal Ferdinando (later Grand Duke Ferdinando I) in Rome seems to have had a genuine interest in this sort of object, to judge by his inventories of the Villa Medici, which included feather-work paintings and a bishop's mitre, the 'Sahagun manuscript', and several items of arms and armour. On his succession as Grand Duke these were all transferred to the Uffizi.²³

²¹ Archivio di Stato di Firenze, Guardaroba Medicea (hearafter ASF, GM) 7, Inventario della Guardaroba del Duca Cosimo alla consegna di Giovanni Ricci da Prato, 26^r.

²² ASF, GM 30, 235^r.

²³ See Heikamp, Mexico and the Medici, 36. For Ferdinando's collecting, see S. Butters 'Ferdinando de'Medici and the Art of the Possible' in C. Acidini Lucinat et al. (eds), The Medici, Michelangelo and the Art of Late Renaissance Florence (New Haven and London, 2003), 222-4.

How, then, were the objects from Cosimo's collections classified? Several inventories taken between 1539 and 1564 reveal considerable variety in the terminology used to classify items of non-European origin. In 1539, the Indian feather work was listed in a separate section under 'costumes [abiti di mascara]', and not included in the extensive lists of textiles or under any other heading. On the same page of this inventory, so presumably considered as belonging to the same category, were horse trappings, covers or blankets of animal skins, and a Turkish cover. Moorish or Turkish arms and armour also appeared elsewhere in the inventory under the various categories for swords, arms and armour, while metalwork, described as 'domaschino' or 'domasco', was also listed. Among the items described as Moorish were various ivory horns which were, in fact, African.²⁴ This implies that these unfamiliar items, the geographical origins of which were not precisely known, were approached in a similar fashion to already-familiar Middle Eastern armour, daggers, sword fittings and horse mounts. It may have been that the sixteenth-century compilers of the inventories of Cosimo's collection identified the African horns (and possibly other objects) as Turkish because traditionally this was the only readily identifiable origin other than European at the time.

By 1553, when inventories of the collections were taken again (this time of the Palazzo Vecchio), Cosimo's collection had expanded considerably. The most complete account of Cosimo's wardrobe as it was in this period is provided by a pair of inventories, one listing objects by type, the other by location. This division may suggest that there were differences between the conceptual grouping of objects according to type and the actual placement of those objects within the Palazzo Vecchio.²⁵ It is clear, however, that neither inventory classified the objects in the collection according to their geographical origins. In the typological inventory, the four Indian feather capes are listed under the heading 'clothing of different types [vestimenti da homo di varie sorte]', while a bedcover of birds' feathers was inventoried under skins and

^{&#}x27;Un corno grande alla moresco coperta di cuoio n[er]o.' See E. Bassani, 'Antichi Avori Africani nelle Collezione Medicee, part 1', *Critica d'Arte*, 143 (1975), 69–79 at 71. This may be a horn with the Medici-Toledo arms, possibly a gift at the marriage of Eleanor of Toledo with Cosimo I, now in the Museo Nazionale del Bargello, Florence. Others were described simply as decorated horns. Bassani, 'Antichi Avori Africani nelle Collezione Medicee, part 2', *Critica d'Arte*, 144 (1975), 8–24 suggests (20) that some ivory spoons (now divided between the Museo Ethnografica, Florence and the Museo Pigorini, Rome) may have been in Eleanor of Toledo's private apartments.

²⁵ ASF, GM 28, Inventaria del Guardaroba di S. Ecc¹¹⁰Cosimo de'Medici [taken by] M Giuliano del Tonaglia, M Giovanni Ricci [and] Mariotto Cecchi 25 October 1553; ASF, GM 30, Inventario della Filza Guardaroba 1553, published by C. Conti, La Prima Reggia di Cosimo de'Medici nel Palazzo della Signoria di Firenze: descritta ed illustrate coll'appogio d'un inventari inedito del 1553 e coll'aggiunta de molti altri documenti (Florence, 1893). Not all of the New World objects appear in both inventories. The feather capes were not listed in the guardaroba among the textiles, leaving unanswered the question of where they were placed after 1539. One, possibly both, of the turquoise masks definitely entered the collection at a later date, which may account for their absence from ASF, GM 28.

linings.²⁶ Two Aztec masks of wood covered in turquoise had also entered the collection by this date (one in 1556) and were simply classified as jewellery (*goia*) (Fig. 4.4).²⁷ In the same category were seven small heads of animals, three of which were described as 'Indian'. These Indian heads have been identified by Heikamp as three small dog heads in agate, amethyst and onyx, now in the Museum of Minerology, Florence.²⁸ Those objects that could not easily be classified according to their material or type seem to have been placed in a miscellaneous category, for example 'vestimenti da homo di varie sorte'. Among the objects in this category were various textiles (such as a banner and Duke Alexander's arms), a dog in jasper, a crocodile and four elephant's teeth, as well as a globe and other small items of ebony or jasper.

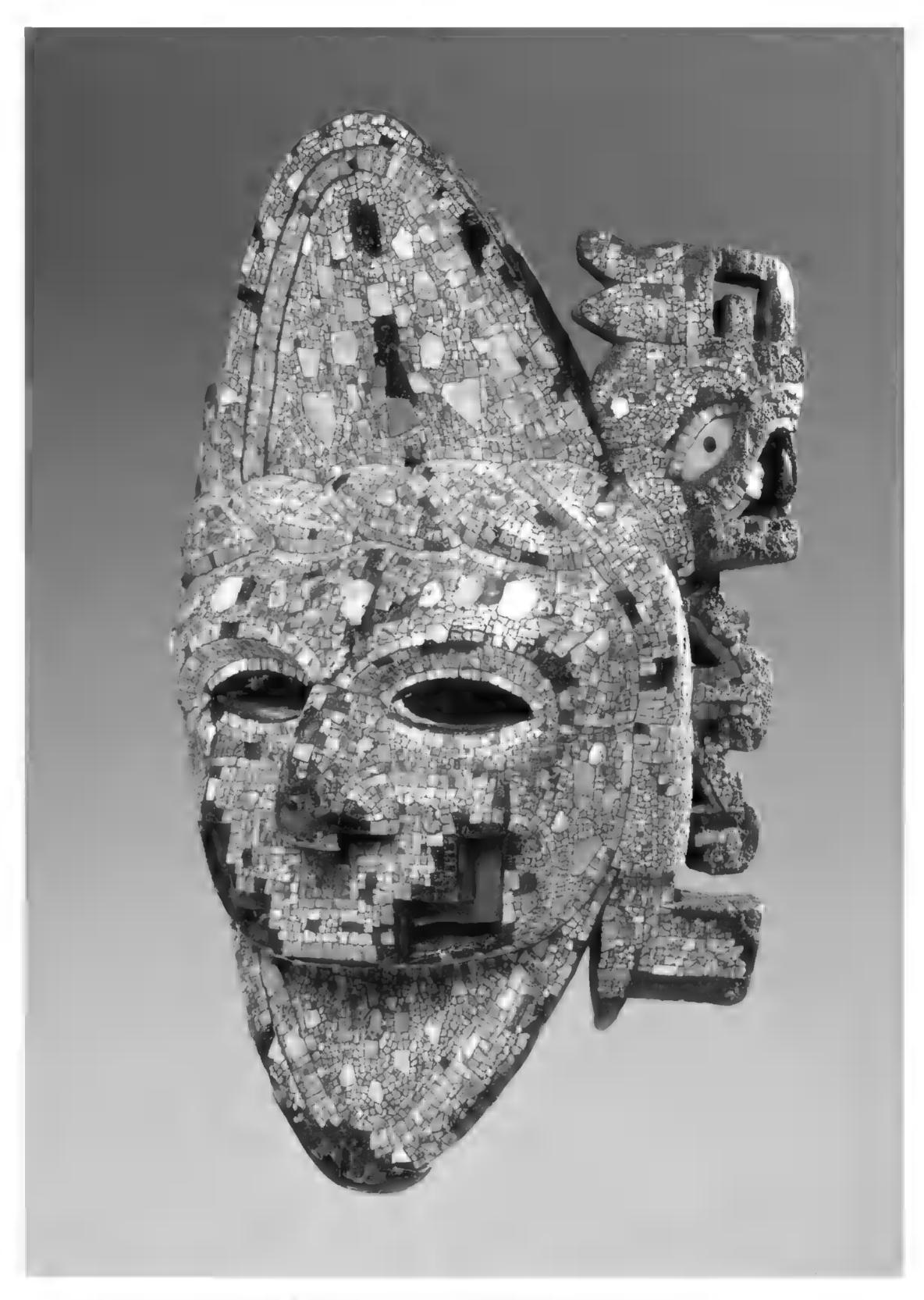
According to the description of the contents of the guardaroba in the inventory compiled by location, this room consisted of an outer wardrobe containing a few antique sculptures, some armour, two black velvet covers 'alla turchescha', and an armoury containing a large collection of European armour. This was followed by the guardaroba secreta (private wardrobe) of fourteen cupboards, the majority filled with textiles of various sorts. In addition to the textiles, cupboard number six contained silver objects, number eleven porcelain, while number twelve was filled primarily with antique figures, some glass and small hardstone objects. Cupboard fourteen contained a miscellany of various types of objects: small bronzes (either antique or in the antique manner), many small weapons, such as daggers or small swords (some of them described as Turkish or Moorish), a few small pieces of furniture (such as a chessboard in mother of pearl or a small writing desk in ebony), watches (including some form of globe or sphere), two horns, now known to be African (one in ivory and one in ebony), a horn in copper with Turkish foliate decoration, and finally some fish teeth in a box, several oyster shells and some bamboo stalks.29 The remaining

²⁶ ASF, GM 30, 235^r.

²⁷ ASF, GM 30, 19^v: 'Una maschera venuta dindia composta di turchine sopra il legno', and 'Dal Ill.^{mo} & Ex^{mo} sig Duca addi 9 marzo issr. Una mascher di legno venuta dindia composta di turchine i sua vesta di cuoio n[er]o recò Desiderio scudiere al giov[edi] le 37 (addì 9 di marzo 1555).'

These objects have sometimes been associated with the work of Cellini as, after the dogs' heads, the inventory lists: 'otto teste di varii animali grandi come noccioule di varie pietre et goioe di mano di Benvenuto Cellini', suggesting that he had either worked on them or had perhaps been given them by the Duke to set. See ASF, GM 37, 13°. It is not entirely clear from the inventory whether it was the animal heads or the other jewels that were from Cellini's hand. It is possible that he was given the heads to mount as they feature holes so that they could be strung into a necklace. There is not, however, any evidence that Cellini ever carried out any of the work. See Heikamp, *Mexico and the Medici*, 13.

²⁹ Among the items in the cupboard were 'uno coltello turchesco manica d'heban[o]', 'guiana di sagri', 'una daghetta lavorata di smalto rosso, con manic[o] d'avorio', 'guaiana simile', 'una mazzetta da cavalli turchi lavoarata di tarsia d'oro, manico d'argento', and the curiosities of nature: 'uno corno d'avorio fornito d'argente', 'uno dente di pescie, uno orioulo a mola una coccia d'un ostrica, una pietra a uso d'un ostrica, bianc et rossa', followed by small luxury items such as 'una scatoletta quadra con foglia da rubini et da smeraldi, una scacchiere et tavoliere di madreperla con



4.4 Turquoise mask from Mexico. Courtesy of Museo Pigorini, Rome.

naturalia – a fish skeleton and the jaw of an elephant with seven teeth – were placed in the first room of the *guardaroba secreta* but not, apparently, in a cupboard.³⁰

II

When a further inventory was taken in 1560 the collection had undergone various changes in organisation, no doubt reflecting the creation of a scrittoio for Cosimo, completed in 1559.31 Altogether, some fifty-nine objects were recorded in the inventory as having been removed from the original guardaroba.32 These included the small Aztec animal heads, small bronzes such as torsos and small figures after the antique, along with modern sculptures including works by Donatello, Sansovino, Cellini and Bandinelli.33 The fact that the Aztec animal heads were included among the pieces taken to the scrittoio raises the question of their significance for Cosimo as they were the only items of American origin to be transferred there.³⁴ Neither the turquoise mask nor the African horns were placed in the scrittoio. It may be, therefore, that the small Aztec heads were considered important less as examples of the exotic but rather for their associations with other small gems and hardstone objects. Moreover, the material in which they were made – hardstone – added to their importance, as it was associated with Rome and antiquity. In this instance, precious, high status materials and associations with antiquity appear to have taken precedence over origins.³⁵ Vasari records that other items were to be brought to the scrittoio, such as shells, stones, oriental crystals, works in sardonyx, and cornelian, some of which were intended for chests under the

tavole; in sachetto di velluto turchino', 'mitria' from Ravenna, and sixteen 'mazzolini di fiori d'oro et seta'. Conti, *Inventario della Filza Guardaroba* 1553, 200–208.

³⁰ These had been listed in ASF, GM 7, 26^v, and in ASF, GM 30, 19^v as 'animali maritime e terrestri'.

³¹ See Allegri and Cecchi, *Palazzo Vecchio e I Medici*, 303–13. According to Vasari (Ragionamento IV) 'to arrange his scriptoio in the new apartments, he (the Duke) had all the *anticaglie* in the wardrobes of the *Guardaroba* all the antique and modern figures, all the busts, animals and new and old things which were found in metal in this wardrobe ...' removed to the new study. Quoted in A. M. Massinelli, 'The Medici Collections at the Time of Cosimo I and Francesco I' in C. Acidini Lucinat (ed.), *Treasures of Florence*, 58.

³² See also Massinelli, 'The "New" Medici', 56, quoting from Vasari's Ragionamento IV: 'here I want only those statuettes and figures which were found near Arezzo ...'.

ASF, GM 30, 1553, 33^{r-v} and 48^r; ASF, GM 37, 13^v, 26^r and 27^v. On 13 June 1555 the small antique sculptures in bronze and terracotta were taken from the wardrobe to be put into the *scrittoio*. For details see A. M. Massinelli, *Bronze e antiaglie nella guardaroba di Cosimo I* (Florence, 1991), 20–21.

ASF, GM 37, 14^r: 'otto teste di varie animali grandi come nocciuole di varie pietre et gioie di mano di Benvenuto Cellini in scatolino coperta di cuio nero.'

³⁵ For Cosimo's considerable interest in hard stones, see S. Butters, *The Triumph of Vulcan: Sculptors' Tools, Porphyry and the Prince in Ducal Florence*, 2 vols (Florence, 1996).

shelves.³⁶ Even if these were Vasari's original intentions, the only non-classical objects (apart from the Indian heads) listed as having been removed from the *guardaroba* were two Islamic metal vases, two perfume burners and a small model cannon.³⁷ This may reflect a change of approach in the choice of objects to be displayed, as Cosimo's study became a room dedicated to displaying Florence's Etruscan past.³⁸

In addition to the relocation of numerous objects, the inventory indicates several interesting changes in the categorisation of *exotica* in the collection. The Aztec turquoise masks were moved from the general section of 'objects of various types' to a section entitled 'costumes for masques [*abiti di maschera*]'.³⁹ This small section of the inventory consisted of a variety of goods: twenty-seven costumes 'of various types [*ventisette mascher'di piu sorte*]', two Turkish swords, a German breastplate, many capes (including old priests' vestments), bishops' mitres and costumes 'a la griega'.⁴⁰ The absence of feather-work from this category is notable, as in 1539 'costumes for masques' had consisted primarily of feather items.⁴¹ In the 1564 inventory, however, the feather-work items were not listed in any of the cupboards, although there were several Moorish or Turkish textiles listed in the outer room of the *guardaroba*.⁴² The original classification of Aztec feather-work items as costumes, highly colourful and wonderfully worked, may have reflected European admiration

^{&#}x27;... e sotto a queste cassette appiè di tutta quest'opera staranno gioie di diverse sorti, le conce in questo luogo, e quelle in rocca i quest'altro, e in quiesti armarj di sott grandi cristalli orientali e sardonic corniuole, e cammei staranno; in questa più grande metterà anticaglie, perché como sa Vostra Eccellenza n'ha pure assai, e tutte rare' Quoted in Massinelli, *Bronzi e Anticaglie*, 12. Although Vasari claimed that he was placing such objects into the study, there is no corroborating evidence from the inventories that he did so.

³⁷ E. Müntz, 'Les Collections de Cosme I de'Medici', Revue Archèologique, 1 (1895), 336-46.

³⁸ For the development of the deliberate creation of the *scrittoio* of Calliope as an exemplar of Tuscan art and history through its specific associations with the collections of Etruscan objects, see the forthcoming article by A. Gáldy, 'The Scrittoio della Calliope in the Palazzo Vecchio: a Tuscan Museum'. I am most grateful to Dr Gáldy for allowing me to consult this article prior to publication and for her generous advice throughout the composition of this essay.

³⁹ ASF, GM 65, 248^r, Robe de piu sorte al libro dess spoglio et calculo de conti di ms Mariotto no'comprese ne nuovi Inventarii delle robe consegna a m Ceseri [1560]: 'Due maschera di Legno coperte di turchine poste dare in conto d'abiti et altre cose da mascherare in questo'; 327^r, Habiti et Altre Cose Da mascherate: 'Due Mascher'di legno coperte di turchine post dare di conti di robe di piu sorte.' These changes may reflect a change of personnel or responsibility, that is, the replacement of Mariotto by Ceseri as head of the Guardaroba.

⁴º ASF, GM 65, 327°.

⁴¹ ASF, GM 7, 26°; the only other items included were a number of lion skins.

⁴² It is possible that these feather-work capes had been given away by this date, though the costumes of two Indian kings were seen in the Armoury by Lassels on his visit to Florence in 1699. See Scalini, 'Exotica in der Mediceischen Kunstkammer', 136. It is possible, however, that Lassels mistook two sets of Japanese armour (given to Francesco in 1585 on the occasion of the Japanese embassy) for Indian costumes, as these were described in the 1631 inventory of the Armoury as 'una armadura di legnio indiano cioè petto estiena listrato d'oro a ordini, con girello fatto a scarselle simile e maniche di tela near con più pezzi.' *Inventario del Armeria* 1613, ASF, GM 513, 25°.

for the native craft skills of the Indians.⁴³ Their removal from this category may have been related to their function, or lack thereof. No longer identified as novel costumes, they were instead associated with historical items such as Duke Alexander's banner. Conversely, the turquoise masks, originally associated with jewellery (reflecting their material and workmanship), were classified as 'maschera' by 1564. The placement of the turquoise masks in the same group as 'abiti grieci' may be coincidental, but might also be related to the Renaissance interest in antique theatre with its prominent use of masks.⁴⁴ Having at first been valued only for their material or decorative value, the placement of the Aztec masks within the 'maschera' group suggests that an appropriate function was found for these artefacts. Moreover, this function may have helped to habilitate these exotic items within a classical, European tradition.⁴⁵

From November 1559 the Duke had another room created for him, in addition to the *scrittoio*. Called the *Tesoretto* it was probably both a study and a wardrobe, although it is extremely difficult to define its actual function. Heikamp has suggested that a list of 1559 records objects intended for the *Tesoretto*, but this cannot be the case as at that date work was only just beginning on the decorations.⁴⁶ It seems more likely that the room's carved walnut cupboards, containing shelves and set into the walls, were intended for the Duke's books and documents.⁴⁷

In terms of display, the room begun in 1553, now known as the Map Room (Fig. 4.5), was more prominent than the *Tesoretto*. This large room was placed at the back of the private apartments of the Palazzo Vecchio, across the *Sala dei*

⁴³ It is plausible that the arrival of the first feather capes in Florence coincided with the burgeoning interest among artists in depicting Indian figures dressed in their native costumes. See Sturtevant, 'First Visual Images', 420–24.

⁴⁴ S. M. Newton, Renaissance Theatre Costume and the Sense of the Historic Past (London, 1975); E. Giorani, 'Le edizioni illustrate dei drammaturghi antichi e l'idea del teatro antico nel Rinascimento' in C. Cairns (ed.), The Renaissance Theatre: Texts, Performance, Design, 2 vols (Aldershot, 1999–2000), i, 20–28. For an example of a masque performed in Florence during Cosimo's reign, see Raccolta delle Feste fatte in fiorenza, dall ill^{mi} et Ecc^{mi} Nostri Signori e padrone il Sig. duca & il Sig.Prinicpe di Fiorenza e di Siena (Florence, 1569). The followers of Pluto were described as 'masked' (39).

⁴⁵ See P. Mason, 'Classical Ethnography and its Influence on the European Perception of the Peoples of the New World' in W. Haase and M. Rheinhold (eds), *The Classical Tradition and the Americas* (Berlin and New York, 1994), 135–72. See also N. Dacos, 'Presents americains a la Renaissance. L'assimilation de l'exoticism', *Gazette des Beaux-Arts*, 73 (1969) 57–64, which discusses the iconography of feather headresses in the work of Cornelis Bos, arguing that the representation may in fact be based on the grotesques of the Golden House of Nero as much as the American Indian.

⁴⁶ D. Heikamp, 'La Tribuna degli Uffizi'.

⁴⁷ Massinelli and Tuena, *Treasures*, 56. See also M. Scalini, 'Curios and Exotica in the Medici Collections' in Acidini Lucinat, *Treasures of the Medici*, 145–53. Scalini seems to think that the *Tessoretto* may have contained *exotica* from the collections but, given the presence of at least one turquoise mask in the *guardaroba* at this date, it is more likely that all similar items would have remained there.



4.5 Map Room, Palazzo Vecchio. Courtesy of Alinari Images.

cinquecento at the top of the stairs opposite the duchess' rooms. The concept of the new room was described by Vasari in the following terms: 'His Excellency, on the orders of Vasari, had a new wall built and a new room – quite large – created next to the *guardaroba* on the second floor of the apartments of his palace. Inside were placed cupboards, seven *braccia* high, with rich decoration in walnut to house the most important, the most prestigious and beautiful objects owned by his Excellency.' ⁴⁸ These cupboards were to be decorated with navigational maps, and Vasari then goes on to describe the programme in detail. The fifty-seven doors were divided so that fourteen represented Europe, fourteen Asia, fourteen the West Indies, eleven Africa, with the remaining four completing the image of the world. ⁴⁹ Animals and plants were to be painted below the cupboards, while above them were to be placed paintings and busts

⁴⁸ G. Vasari, *Le Vite de piu eccellenti Pittori scultori ed architettori scritte da Giorgio Vasari*, 7 vols (Milanesi Firenze, 1881), vii, 633–4; also quoted in full by D. Heikamp, 'L'Antica Stistemazione degli Strumenti Scientifica nelle collezione fiorentine', *Antichità Viva*, 9, 6 (1970), 3–25.

⁴⁹ The maps were begun by Egnatio Danti and completed by Stefano Buonsignori. The wardrobes were made by Dionigi Nigretti. See Allegri and Cecci, *Palazzo Vecchio*, for a complete account of the creation of the Map Room.

of famous men. The room was not completed until long after Cosimo's death in 1574, by which time Francesco had begun to change the arrangement of the Palace. However, it seems that from the beginning the room was intended to represent the known universe, centred on the great armillary sphere by Lorenzo della Volpaia.⁵⁰

It is generally agreed that Cosimo either kept or intended to keep his collections in the Map Room, although no inventories of its contents survive, and it is possible that objects were never actually transferred to the new room.⁵¹ Assuming, however, that the room was originally intended to house Cosimo's collection, the organisation of the 1560-65 inventories may well represent the proposed arrangements for the contents of the Map Room's cupboards. The inventories suggest that the objects would have been arranged according to material – textiles of various types, porcelains, and so on – rather than the geographical origins of particular items. This implies that there was not necessarily any correlation between the contents of a given cupboard and the map painted on the cupboard's door. One exception to the system of classification by material, however, is a cupboard that contained a variety of miscellaneous items including the turquoise masks, a globe, a jasper dog and most of the *naturalia* – some elephant's teeth, crocodile and fish skeletons, and a crab shell – which were categorised in the section of 'goods of various types, sorted out and counted in the accounts of M. Mariotto, and not included in the new inventory of goods given to M. Cesari.'52

Ш

The flexibility of categorisation and nomenclature indicated by the inventories discussed above may well be a reflection of Europeans' changing approach to the New World during the sixteenth century, as objects from the Americas became more familiar, but also more loosely defined. It seems that in Cosimo's collections, each object's *precise* source becomes less important than the fact that it was non-European. It is particularly notable, for example, that in the 1539 inventory the Aztec heads and feather-work items were described as

The description of the order of the paintings strongly suggests that they were seen as relating to the globe: 'poi come s'entra dentro a man ritta è tutta l'Europa in quattordici tavole e quadri, una dreto all'altra fino al mezzo della facciata che è a sommo dirimpetto alla prota principale, nel qual mezzo s'è posto l'oriolo con le ruoete e con le spere de'pianeti che giornalmente fanno entrando i lori moti; ... Disopra a queste tavole è l'Affrica in undici tavole, fino a ditto oriolo; seguita poi di là dal ditto oriolo l'Asia, nell'ordine da basso.' Vasari, *Vite*, vii, 633–4.

⁵¹ L. Feinberg, 'The Studiolo of Francesco I Reconsidered' in Acidini Lucinat, *The Medici, Michelangelo and the Art of Late Renaissance Florence*, 47–65, and A. Gáldy, 'con bellisimo ordine: Antiquities in the Collection of Cosimo I and Renaissance Archaeology', unpublished Ph.D. diss. (University of Manchester, 2002).

⁵² ASF, GM 65, 248^r.

'indiane', 'al'indiana' or 'd'india', indicating that at this date their provenance may have been known and of some interest, while in the 1564 inventory the Aztec turquoise masks were not associated with the Indies, but instead were considered appropriate items for the fantasy worlds of masques. What, though, are we to make of the fact that one group of feather pieces in the 1539 inventory was described as Moorish rather than Indian? Was this a deliberate use of 'Moorish' instead of 'Indian' or were the terms merely interchangeable in the context of an inventory?⁵³ While some sixteenth-century inventories correctly identify New World objects as 'Indian', it is by no means clear whether the compilers of the Medici inventories used the term specifically to identify objects from the Americas or more generically to designate *exotica*.⁵⁴

The fact that a selection of Cosimo's New World objects were listed in the same categories as *naturalia* has been used by some scholars to suggest links between the Medici collections and the northern *Kunst*- and *Wunderkammern*, where these objects were all (usually) placed in the same large room in order to represent the microcosm of the world.⁵⁵ We should be cautious, however, in assuming that the display of Cosimo's collections was conceived of in similar terms to the displays of his northern contemporaries. The Medici had a long tradition of collecting items of *naturalia*, including such objects in their collections of oriental ceramics and Middle Eastern metalwork.⁵⁶ In the 1492 inventory of Lorenzo de'Medici, for example, three fish heads and a petrified stone were listed among the contents of the *scrittoio* along with small paintings, small bronzes and small works of art.⁵⁷ Rather than attempting to create an encyclopaedic or microcosmic collection, Cosimo may simply have been continuing traditional (that is, fifteenth-century) Medici areas of collecting.⁵⁸

ASF, GM 7, 26^r: 'sette ispriachi di piume moreschi di penne d'India.' The situation is further complicated by the fact that we do not know what *ispriachi* are.

⁵⁴ S. Cotàn, *Inventarios reales: bienes muebles que pertenecieron a Felipe II*, 2 vols (Madrid, 1956–9) ii, 332–40: 'cosas extrahordinarias'. In the inventories of Philip II of Spain there seems to be some attempt to correctly identify objects of New World origin by describing them as coming from 'las Indias', or 'Indios'. This was not the norm, however, and the Medici inventories clearly did not make the same efforts at correct identification.

⁵⁵ For Cosimo I's study see Massinelli, 'The Medici Collections'. For Francesco de'Medici's stanzino and associations with the Wunderkammer, see Feinberg, 'The Studiolo of Francesco I Reconsidered'; D. Heikamp, 'La Sovrane Belleza' in Magnificenza alla Corte dei Medici, 338. Heikamp specifically links the *Tribuna* to the Wunderkammer. Similar associations are made by C. Acidini Lucinat in 'The Treasures of the Medici'.

In Piero the Gouty's inventories of 1456 and 1463 we find a section for damascened objects, while in the porcelain section there were three 'alberghi domaschino' and an 'infreschatoio de vetro domaschino' which presumably refer to jars of Damascus glass and pottery. See E. Muntz, *Precurseurs de la Renaissance* (Paris and London, 1888), appendix.

For Lorenzo's inventory, see M. Spallanzani and G. Berta, Libro d'inventario del beni di Lorenzo il Magnifico (Florence, 1992), $6^{\rm v}$ and $28^{\rm r}$.

⁵⁸ See J. Cox-Rearick, Dynasty and Destiny in Medici Art: Pontormo, Leo X and the Two Cosimos (Princeton, 1984).

Furthermore, the evidence for any theoretical underpinning to the display of the Medici collections during Cosimo's lifetime, comparable to the relationship between, for example, Quicchelberg's *Theatrum* and Albrecht V's collections in Munich, is slight.⁵⁹ Lisa Bolzoni has established that Vincenzo Borghini was aware of Giulio Camillo's *Idea del Teatro* (1550) when he began the programme of decoration for Francesco's *stanzino* in the Palazzo Vecchio, begun in 1570, a few years before Cosimo's death.⁶⁰ If Camillo's ideas were known in Florence in the early 1550s, it is plausible that when Vasari wrote about the Map Room he might have been aware of the ideas expressed in the *Teatro*. He may even have conceived the display of Cosimo's collection as a representation of the 'theatre of the world'. Nevertheless, the many differences, particularly in the principles of organisation and display, between collections based on Camillo's organisational principles, such as the Munich or Ambras *Kunstkammern*, and the arrangement of Cosimo's collections suggest that such connections should be treated with considerable caution.

IV

Turning now to an examination of the arrangement of Albrecht V's collection in Munich, we find considerable differences to the organisation of Cosimo's collection in Florence. In his *Theatrum*, Quicchelberg gave equal importance to 'artificiosarum rerum conclare' and 'miraculosarum rerum promptuarium': to works of art and works of nature. These categories were, in fact, followed in the display of Albrecht's collections as demonstrated by the inventory taken after his death.⁶¹ In this collection, the number of objects from the New World arranged in identifiable units reflects the Habsburgs' considerable curiosity about these items as examples of foreign cultures – an interest frequently expressed in their correspondence with each other and with their agents. For example, in the 1592 inventories of Philip II, the New World objects were listed in the section for 'extra-ordinary' things.⁶² Similarly, in 1564 Ferdinand I of Vienna noted: 'Because, as you have understood, we are very pleased with several rare things and we have the curiosity and determination to leave

⁵⁹ For the relationship between theoretical works on organisation and the actual arrangement of collections, see, for example, L. Bolzoni, 'Das Sammeln und die ars memoriae' in A. Grote (ed.), *Macrocosmos in Microcosmo: die Welt in der Stube, zur Geschichte des Sammelns, 1450 bis 1800* (Berlin, 1994), 130–68; M. A. Meadow, 'Merchants and Marvels: Hans Jacob Fugger and the Origins of the Wunderkammer' in P. Smith and P. Findlen (eds), *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe* (New York and London, 2002), 182–200.

⁶⁰ See L. Bolzoni, 'Lo Stanzino di Francesco I' in *Le Arti del Principato Mediceo* (Florence, 1980), 255–300.

See Seelig, 'The Munich Kunstkammer 1565–1807'. The inventory was compiled by Johann Baptis Fickler in 1598, from which Seelig has reconstructed the layout of the *Kunstkammer*.

⁶² F. J. Sánchez-Cantón, Inventarios Reales, ii, 332.

a record of them.'63 In 1572, Maximilian II wrote to Adam von Dietrichstein in Madrid that he should use his judgement in finding works of art from the Indies or other such rare things not known in Germany, but 'that, as he knew, the rarer, so much the better [quanta rariora tanta meliora].' In particular, he instructed von Dietrichstein that he should 'try to find out whether the works of art had come from the Indies [tengais cuidado de entender si vinieren de las Indias, o otras cosas que en estos partes no se hayan vistos]'.64 Similar terms were used by Philip II's keeper of the seal, Joachim Hoffer, when he referred in a letter to 'certain curiosities that he [Albrecht V] would like to have for the cabinet he is creating [alcunes curiosites quil vouldroit vein avoir pour cabinet quil faict]'.65 It is striking that no similar interest is found, to the best of my knowledge, in any of Cosimo I's correspondence.

Albrecht V's collection did include a wide variety of objects that shared some similarities with Cosimo's collection: antique sculptures, Moorish arms and armour, elaborate metalwork objects of silver and gold, carved ivory pieces from Africa, American artefacts, natural objects (some of which were mounted) and preserved animals, to name only a few.66 However, although some of the collection's categories were determined by material, many of the objects were placed together on tables because they were similar in appearance – for example, they appeared to be foreign or were examples of interesting techniques. In terms of display, though, Albrecht's collection was strikingly different to Cosimo's. Amongst the Munich artificialia were tables displaying wax models, lenses and mirrors, or mathematical instruments. Many tables displayed foreign objects, such as table no. 66, which showed American objects, or no. 55 with Turkish items. On another were fine wooden works with Indian and Turkish textiles in the drawers, while another boasted an Indian table with a game board and mother-of-pearl marquetry. The huge collection of Indian works of art were thus generally placed together on the same table, although they were occasionally mixed with other works of art of a similar type, whether textiles or objects representing specific techniques.

From the early 1570s onwards, the display of the Medici collections seems to have developed into something closer to the *Kunst-* and *Wunderkammer*, as exemplified by the collections of Albrecht V. As such, it is worth considering briefly the collections of Cosimo's successors, Francesco I and Ferdinando I,

⁶³ 'Porque come tenier entendidio, nos selectamos mucho con algunas cosas raras (curiosas) y por curiosidad tenemos intencíon y propósito dejar la memoria de ellas', quoted in K. Rudolph, 'Exotica bei Karl V', *Jahrbuch des Kunsthistorischen Museums Wien*, 3 (2002), 175.

⁶⁴ Rudolph, 'Die Kunstbestrebungen der Kaiser Maximilians II', 170; 'Exotica bei Karl V', 176.

⁶⁵ L. Seelig, 'Exotica in der Münchner Kunstkammer der Bayerischen Wittelsbacher', *Jahrbuch des Kunsthistorischen Museums Wien*, 3 (2002), 145–62 at 147.

⁶⁶ Seelig, 'Exotica in der Münchner Kunstkammer'.

particularly as several writers on the history of collections have viewed the arrangement of Cosimo's collections as an important prelude to these later displays.⁶⁷ The iconography of the decoration for both Francesco's study and the Tribuna has been studied extensively, in particular the supposed microcosmic representation of the macrocosm of the universe.⁶⁸ However, for the purposes of this essay, it is more important to concentrate on the organisation of the collections and their display. These are best examined through the inventories of the contents of the gallery of the Casino di San Marco, taken at Francesco's death in 1587,69 and the inventory of the Tribuna, taken two years later on Ferdinando's restructuring of the Uffizi galleries and workshops.⁷⁰ The gallery collections contained antique and modern sculptures, hardstone vases, bezoar stones or ostrich eggs mounted in silver or copper, clocks and watches and small caskets. Some of these may have been among Cosimo's collections (though this cannot be conclusively determined), others were completely new additions.⁷¹ The 1587 inventory, which seems to proceed along the shelves, provides the clearest account of the way the objects were placed in the gallery and the possible relationships between them. Smallscale sculptures, the majority of which seem to have been modern, formed the focus of the collection. Interspersed among them were examples of virtuosic manufacture such as 'three pieces of rock crystal, that is one engraved navicular cup with one vase of similar kind with its cover, and one small salt cellar of like kind, octagonal in shape with a foot with gold buttons as ornaments and on the foot [tre pezzi di cristallo di montagna che uno bicchiere a navicella intagliato con uno vaso simile con suo coperchio una salierina simile attoangolo con niche con ornamento di bottone cal piede]' or 'one ostrich and one ship in enamelled gold with numerous diamonds and rubies and emeralds around, with an enamelled gold figure on said ostrich [Uno struzzo e una nave doro smaltata con piu diamante e rubina esmerato atorno con una figurina dora smaleata su ditto

⁶⁷ See, for example, A. Grote, 'Die Medici: Ikonographische Propädeutik zu einer fürstlichen Sammlung' in Grote, Macrocosmos in Microcosmo, 209–42.

⁶⁸ S. Schaeffer, 'The Studiolo of Francesco de'Medici', unpublished Ph.D. diss. (Bryn Mawr, 1976); M. Rhinehart, 'A Document for the Studiolo of Francesco de'Medici' in M. Barasch and L. Freeman Sandsler (eds) Art, the Ape of Nature: Studies in Honour of H. W. Janson (New York, 1981), 275-89.

⁶⁹ ASF, GM 136, Inventario della Guardaroba della Casa e Palazzo del Casino, a custodia di Piero Elmi comineiato oggi questo di 8 di Marzo 1587, 129^r–162^v. Part of the inventory of the Gallery (154–68) has been transcribed in A. M. Massinelli and F. Tuena, Treasures of the Medici, 230–32.

⁷º Published in G. Bertelà, La Tribuna di Ferdinando I de'Medici: Inventari 1589–1631 (Florence, 1997), 3–60.

⁷¹ Among these were several mounted objects of *naturalia* such as 'an India-nut for use as a flask with a long neck ... the claw of a great beast with ornament from the top in wood and ebony crowned with little silver stars ... one antique flask with in front two snails in mother-of-pearl edged with gold and various colours with a foot in worked silver, an antique flask made from an ostrich egg furnished with German steel inlaid with silver with its handle and beak.' Massinelli and Tuena, Treasures of the Medici, 230.

struzzo]'.⁷² Items from nature were present in far greater quantities than in Cosimo's collection, all elaborately mounted, such as cups of India nuts, a flask in Indian tortoiseshell and several snails made from mother-of-pearl. These objects reflected Francesco's fascination with workmanship and the material in which the work was done.⁷³ None of the Aztec works of art – neither the feather goods nor the turquoise masks – were listed on the shelves, so the *exotica* seems to have been included to express the same relationships between materials and techniques as the European works of art.

In Ferdinand's Tribuna we find a similar emphasis on small sculptures, combined with hard-stone vases, objects of unusual materials (such as motherof-pearl), small German and Turkish arms and further mounted objects, all of which would have been admired as examples of the marvellous – whether for the intricacy of workmanship or the preciousness of the materials. The arrangement was seemingly more compartmentalised than in the gallery of the Casino – small busts and statuettes of marble, semi-precious stones, and bronzes on the shelves around the room, small, precious items and jewels (including the Aztec animal heads) in drawers under the shelves or in the grand central cabinet. Elaborately-worked objects were placed either in cupboards or grouped in the small turrets and arches designed by Bernardo Buontalenti. In one of these groups, bronze figures were combined with small carvings in hard stones, an ostrich egg engraved with grotesques, the silver base in the form of a crab, or elaborate 'mineral mountains' of raw minerals set on silver stands.74 The few objects that could have come from the New World were of rare materials: among the items described as being 'all'Indiana' or 'dell'Indie' were a tortoiseshell vase and a jasper tazza, and an object described as a 'bust of an idol of chalcedony draped in a cape [una testa con busto d'uno idolo di calciedonio vestita con panno in capo].'75 This last item has been associated with one of the small American statuettes still in the collection, although the extant piece is actually made of jade.⁷⁶ The majority of the New World objects, in

⁷² ASF, GM 136, 158v.

⁷³ For Francesco's fascination with working in hardstones, experimenting with porcelain manufacture and other examples of his interest in the manufacture of works of art, see L. Berti, *Principe dello studiolo, Francesco I dei Medici e la fine del rinascimento fiorentino* (Florence, 1967).

⁷⁴ Massinelli, 'The "New Medici" as Collectors', 61–71.

⁷⁵ Bertelà, Tribuna di Ferdinando I de'Medici, 37.

⁷⁶ Although Heikamp classifies certain items as being New World objects, they were not identified as such by contemporaries. Moreover, the descriptions are not precise enough to be sure that the objects necessarily were Aztec or other New World objects. The items identified by Heikamp as deriving from the Americas included a mask with silver chain, a tortoiseshell vase decorated with silver from the Indies and an earthenware pot, all of which could have come from other parts of the world. 'Un vaso di terra rossa dipinta dell'Indie a uso di navicella serrata di sopra con sua becchuccio e sopra un giglio che fa peverino' may well be from the New World, but others, such as 'un vaso di scorza di tartaruga guarnita d'argento venuta dell'Indie cioè coperchio, piede e beccuccio d'argento' remain of uncertain provenance. Bertelà, *Tribuna di Ferdinando I de'Medici*, 25. In particular, given the importance and prestige of feather items, it is interesting that no attempt to



4.6 Aztec jade mask. Courtesy of Alinari Images.

particular the feather objects from Ferdinando's collection and turquoise masks, were not in the Tribuna itself but probably in the Armoury next to it, along with the Turkish arms and armour, the African horns and other similar items.⁷⁷ (Fig. 4.6) Nor indeed were there any examples of naturalia, unless mounted.

include them was made in the Gallery of San Marco or the Tribuna.

⁷⁷ They do not appear in the Inventory of the Tribuna (ASF, GM 70), but were found later in the 1640 inventory (ASF, GM 572). Heikamp argues that they were placed in the new rooms for the Armoury, next to the Tribuna in the Uffizi galleries, which were decorated with paintings of Amerindians by Ludovico Buti. See Heikamp, Mexico and the Medici, 19–21

Consequently, it seems the late sixteenth-century Medici collection included those objects that could be associated with the 'marvellous' as it pertained to material or manufacturing skill, rather than geographical origin, arranging them in such as way as to make these comparisons obvious to the viewer.⁷⁸

Where, then, does this account of the sixteenth-century Medici collections leave us? Clearly there were similarities between the types of objects collected by Cosimo and Francesco in Florence, and those amassed by Albrecht V in Munich. Indeed, the closest the Medici came to creating a Kunstkammer seems to have been the collections of Francesco in the Galleria of San Marco or in his stanzino.79 However, while not advocating the separation of collections into the 'northern' and 'southern' types determined by Schlosser, it seems important to maintain some distinctions (based on a close reading of the surviving documentary evidence) between the approaches to collecting and display expressed in the collections of the Medici Dukes and the Kunst- and Wunderkammern of the Habsburg princes. 80 In Cosimo's collections in particular, the separation of New World objects between the scrittoio and the guardaroba suggests that these objects were not considered a homogeneous category of rare or strange works of art representative of unknown cultures. Rather, as we have seen, the contents of the scrittoio demonstrated the riches of the past in the context of the present, while the *guardaroba* acted as a room for the display of miscellaneous textiles, works of art and silver, and also as a functioning wardrobe, supplying the palaces with silver or furnishings of tapestries and coverings as needed.81 Cosimo may have developed the guardaroba into the Map Room with the intention of creating a more unified display of the collections, possibly moving towards a 'theatre of the world' arrangement along the lines of Quicchelberg's Theatrum. Yet while the decoration of the Map Room may be linked to the ideas expressed in the northern Kunstkammern, its contents and organisation have stronger associations with the quantity and type of objects found in earlier Italian studioli, such as those of the fifteenth-century Medici, or Isabella d'Este in Mantua. This detailed study of the changes of

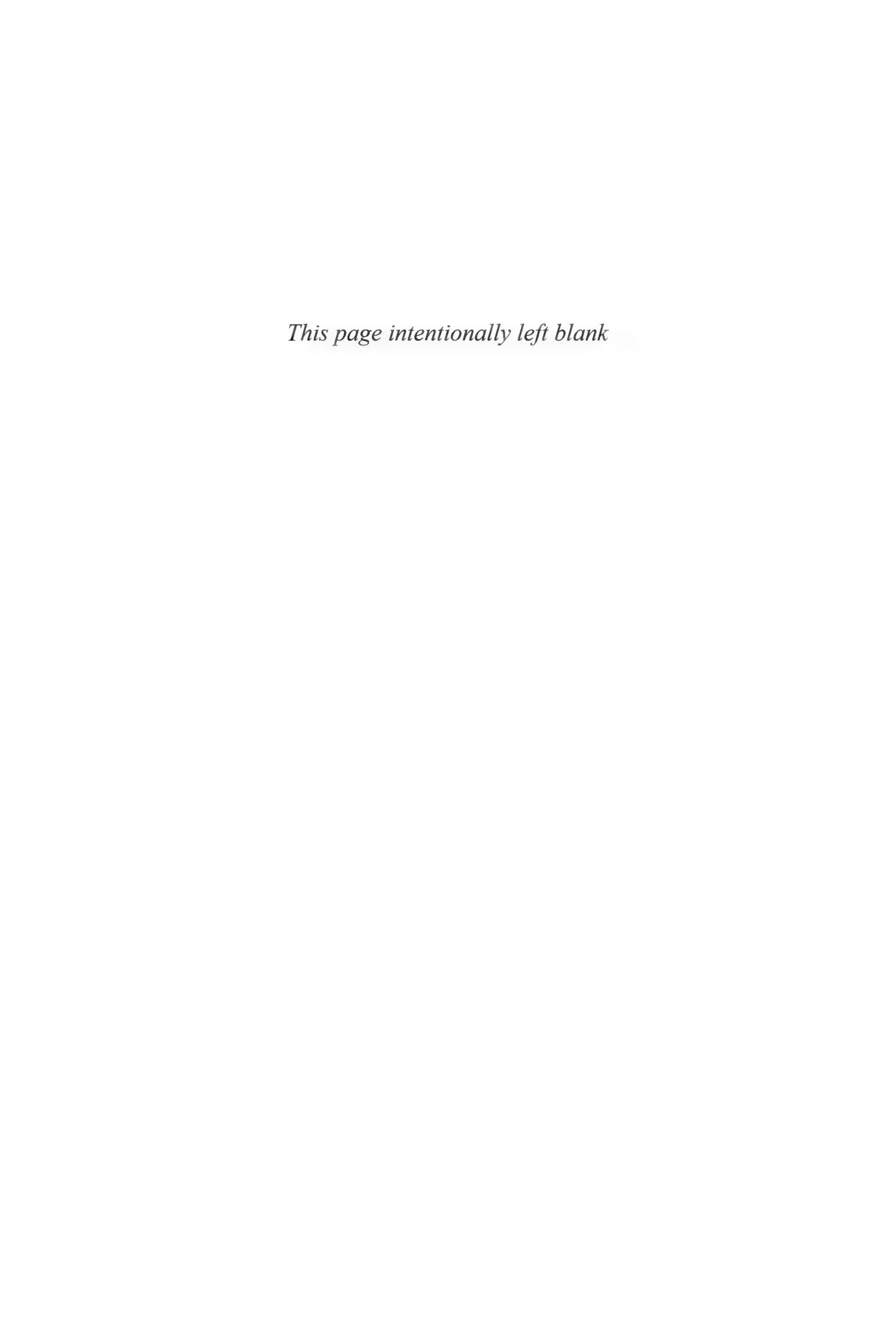
⁷⁸ Notably, the use of the term 'maraviglia' to describe both the objects and the reaction to them is consistent with Italian humanist preoccupations with the marvellous as expressed in commentaries on Aristotle's *Poetics* and *Rhetoric*. See B. Hathaway, *The Age of Criticism* (Ithaca, 1962); J. V. Mirollo, 'The Aesthetics of the Marvelous' in Kenseth, *Age of the Marvelous*, 69–74. In refuting Aristotle's account of wonder, Francesco Patrizi devoted four of the ten books to the discussion of *maraviglia* and *mirabile*: *Della Poetica*: *la deca ammirabile* (Ferrara, 1586).

⁷⁹ Feinburg argues that Francesco used the *stanzino* as a vault room, comparing it to a northern *Wunderkammer*. Based on the depictions painted on the cupboard doors he argues that Francesco would have kept his collections of *naturalia*, such as bones and bezoar stones used for medicinal purposes or fossils, materials for the production of glass, and precious items of gold, hardstones, precious stones, rings and carved gems. Feinburg, 'The Studiolo of Francesco I', 55–60.

⁸⁰ A. Paolucci, 'Introduction' in Magnificenza alla Corte dei Medici, 9.

⁸¹ Allegri and Cecchi, Palazzo Vecchio, 293–301.

categorisation and display undertaken during Cosimo I's reign shows, in fact, how very carefully the traditions of the studiolo were maintained, while gradually creating new iconographic programmes relating to the needs of the Medici princes to display their artistic patronage to the appreciation of a wider public.



The jocund cabinet and the melancholy museum in seventeenth-century English literature

Claire Preston

Ι

'There are a bundle of curiosities', Thomas Browne writes in *Religio Medici* (1643), '... proposed and discussed by men of most *supposed* abilities, which indeed are not worthy our vacant houres, much lesse our serious studies; Pieces onely fit to be placed in *Pantagruels* Library, or bound up with *Tartaretus De modo Cacandi*' [my emphasis].¹ Pieces suited only to such a collection as this – a library in Paris which Pantagruel visits during the period of his extraordinary education – also include books with titles like *On the Varieties of Soups*, a commentary on peas and bacon, and a receipt for purging doctors. If this huge catalogue of learned nonsense has a crackpot likeness to the carefully patterned arrays of information and things belonging to the early modern curious collection and to encyclopædic works like *Pseudodoxia Epidemica* and the early chapters of *Urne-Buriall*, it is because it signals the *inappropriateness* of certain kinds of collecting.²

Rabelais's parodic library in part inspires a minor but distinctive seventeenth-century English genre based on this impropriety: the curiosity-spoof either as a stinging caricature of the *virtuoso* and the *curioso*, or as the fanciful catalogue of absurd collections.³ Although the great majority of

This essay, written originally in 2003 for the present volume, was eventually incorporated in slightly different form in *Thomas Browne and the Writing of Early Modern Science* (Cambridge, 2005).

¹ T. Browne, *Religio Medici* (1643) in *The Works of Sir Thomas Browne*, ed. G. Keynes, 4 vols (2nd edn; Chicago, 1964), vol. 1 [hereafter cited as *RM*], 21.

² For discussions of early modern collecting, see O. Impey and A. MacGregor (eds), *The Origins of Museums: The Cabinet of Curiosities in Sixteenth- and Seventeenth-Century Europe* (Oxford, 1985); A. Lugli, *Wunderkammer* (Turin, 1997); P. Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley, 1994); and P. Smith and P. Findlen (eds), *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe* (London, 2002).

³ The habits and practices of the virtuoso are discussed by W. E. Houghton, Jr in 'The English

these are squibs, either comic or mildly satiric, Musæum Clausum, a late work by Browne, tempers this spoof-tradition with serious, even discomfiting, provisos, ones which invest the practices and aims of collecting with distress and melancholy. The contemplation of broken antiquities and fragments by learned virtuosi, Leonard Barkan argues, contributed 'to a living text of epic similes whereby that which is seen becomes aggrandised through a ratio of comparisons to that which cannot be seen.'4 For Browne it is less to speculate on the lost than on loss itself; and this essay considers, through the literary parodies of curiosity, collecting, and amateur natural philosophy, his response to the remains of things which either cannot be seen whole, cannot be seen at all, or can at best be seen only imperfectly. By highlighting the more ridiculous consequences of fragmentation, the curiosity-spoofs help us to frame Browne's more sombre concerns in *Urne-Buriall* and *Musæum Clausum*, where the absurdity and the inefficiency of collecting and its practices stand in his thought as the emblem of failed enquiry, of the futility of recuperative assemblage.

The parodists and satirists mock the ludicrous elements in collecting, cataloguing, encyclopaedism, experimental philosophy and souvenir- or trophy-hunting – the whole range of disciplines and practices connected with curiosity. The reluctance of late-humanist culture to move away from textual authority made the antiquary's and the experimentalist's interest in things, rather than in books or manuscripts, difficult to assimilate into the prevailing model of learning;⁵ thus, although the experimental philosopher's shelves of specimens and the gentleman's cases of souvenirs are distinct categories, they seem and are also cognate, so that the comic writers often detect little difference between the cockleshells of natural philosophy and the hodmadods of antiquity, the idiosyncratic zeal associated with each enthusiasm being practically indistinguishable.

'He's an enemy to wit, as all virtuosos are,' says Thomas Shadwell; '... a sot who has broken his brains about the nature of maggots, ... that has spent two thousand pounds in microscopes, to find out the nature of eels in vinegar,

Virtuoso in the Seventeenth Century', parts 1 and 2, *Journal of the History of Ideas*, 3, 1 (January 1942), 51–73; 3, 2 (April 1942), 190–219. More recent accounts are given by R. G. Frank, Jr, 'The Physician as Virtuoso in Seventeenth-Century England' in *Papers Read at a Clark Library Seminar*, 5 *February 1977* (Los Angeles, 1979), 57–114; and D. Freedberg, *The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History* (Chicago, 2002).

⁴ L. Barkan, Unearthing the Past: Archaeology and Aesthetics in the Making of Renaissance Culture (New Haven and London, 1999), 72. See also S. Piggott, Ancient Britons and the Antiquarian Imagination: Ideas from the Renaissance to the Regency (London, 1989); G. Parry, The Trophies of Time: English Antiquaries of the Seventeenth Century (Oxford, 1995); and my Thomas Browne and the Writing of Early Modern Science (Cambridge, 2005), ch. 4.

⁵ Piggott, Ancient Britons, 25; and M. Hunter, Science and Society in Restoration England (Cambridge, 1981), 160.

mites in cheese, and the blue of plums, which he has subtly found out to be living creatures.' Butler has the natural philosopher ask:

What is the nat'ral cause why fish, That always drink do never piss; Or whether in their home the deep By night or day they ever sleep?⁷

Mary Astell accuses him of valuing 'a camelion or salamander's egg above all the sugars and spices of the West or East Indies, and wou'd give more for the shell of a star-fish or a sea-urchin entire, than for a whole Dutch herring-fleet'; moreover, '[h]e is a smatterer at Botany' whose interests range only among plants 'that are not accused of any vertue in medicine'.⁸ The antiquaries, meanwhile, 'doat on decays with greater love than the self-lov'd Narcissus did on his beauty', according to Shakerley Marmion.⁹ 'The ruins of wit, gutters of folly, amongst the rubbish of old writers', writes Robert Burton, '... is to them the most precious elaborate stuff, they admired for it, and as proud, as triumphant, in the meantime for this discovery, as if they had won a city or conquered a province.' The absurdity of natural philosophy and of antiquarianism becomes a byword for oddity, and Donne can characterise the unusual as 'stranger than seaven Antiquaries studies' in his *Fourth Satyre*. 11

In the same way as Browne allows the accumulated sepulchral vainglories of *Urne-Buriall* to accuse themselves, so the caricaturists pile on the stuff – the sheer variety of items and projects and attitudes – thrown up by the cults of collecting and of natural philosophy. But the parodies and spoofs are nevertheless orderly and even serious anatomies of a doubtful intellectual disposition, which seems to encourage civil neglect: all this *stuff*, they insist, promotes social debilitation in the collector and the naturalist, especially in the forms of isolation and domestic carelessness. The non-dramatic mockcatalogue, unlike the plays, essays and poems, can only imply a collecting persona, but it too appropriates the extreme specificity of collection and of

⁶ T. Shadwell, *The Virtuoso* (1675), eds M. H. Nicolson and D. S. Rodes (London, 1966), I.i.301–2 and I.i.9–10. The play has been examined by J. M. Gilde, 'Shadwell and the Royal Society: Satire in *The Virtuoso'*, *Studies in English Literature*, 10 (1976), 469–90; and C. Lloyd, 'Shadwell and the Virtuosi', *PMLA*, 44 (1929), 472–94.

⁷ S. Butler, 'Satyr Upon the Royal Society' in *Satires and Miscellaneous Prose*, ed. R. Lamar (Cambridge, 1928), 32 (ll. 41–4). See also W. Horne, 'Curiosity and Ridcule in Samuel Butler's Satire on Science', *English Literary Culture*, 7 (1983).

⁸ M. Astell, 'The Character of a Vertuoso' in *An Essay in Defence of the Female Sex* (1696), 97. See also B. Jonson, *The New Inn*, in *Ben Jonson*, ed. C. H. Herford and P. and E. Simpson, 11 vols (Oxford, 1938), vii, I.i.24–40.

⁹ S. Marmion, *The Antiquary* (1641) in *Dodsley's Old English Plays*, 11 vols (London, 1875), xiii, 411–523.

¹⁰ R. Burton, *The Anatomy of Melancholy*, eds T. C. Faulkner, N. K. Kiessling, R. L. Blair, 6 vols (Oxford, 1989), i, 102.

John Donne, Poetical Works, ed. H. J. C. Grierson (2nd edn; Oxford, 1971), l. 21.

enquiry, so that instead of a comic protagonist, the catalogued and collected items themselves characterise a sensibility, and indeed can maintain a wider and more suggestive field of ideas than is possible to establish for the extremely personalised virtuoso character. The catalogue converts its items into polemical, rhetorical energy through extended bibliographical and artefactual enumeration; and these lists, anonymous and in a sense vagrant, compel us to identify some meaning and purpose for the collection, as well as the disposition of the collector. Like the real catalogues and collections they mimic, these works are thematically coherent, and transcend the sum of their extremely intricate parts.

The curiosity-spoof, associated with contemporary ideas of idleness and employment, has special significance for the developing culture of investigation and assemblage in the early modern period: some amateur naturalists and experimenters were suspected of economic and moral wastefulness, of diligence only 'to procure Triffles'.12 Astell, Shadwell and other Restoration voices explicitly criticise what were perceived to be the more eccentric experimental activities of the Royal Society, especially the indulgent introduction of outlandish and impractical technologies. Shadwell's Sir Nicholas Gimcrack, for example, mimicking real experiments by Cox and Hooke, has transfused a sheep and a madman, a procedure which made the madman 'wholly ovine or sheepish; he bleated perpetually, and chew'd the cud.'13 Sir Nicholas's irascible uncle remarks that 'if the blood of an ass were transfused into a virtuoso, you would not know the emittant ass from the recipient philosopher.'14 Later, Sir Nicholas is accused of inventing an engine-loom, but he is able to assure a mob of angry ribbon-weavers that they need have no fear of unemployment: 'I protest and vow ... I have never invented anything of use in my life.' 15 And along with Marmion's Veterano, and Suckdry and Sir Gudgeon Credulous in John Wilson's The Projectors (1665), Sir Nicholas's obsessional curiosity also results in various domestic embarrassments, including the misbehaviour of his headstrong wife and nieces.

Thomas Nashe, who says it 'argueth a very rusty wit, so to dote on wormeaten eld', yokes antiquarian compiling to foolishness. Donne, having elsewhere epigrammed the antiquary as a domestic liability, disparages his 'joy and complacency' in thinking he can 'resuscitate and bring to life again ... mangled and lame fragmentary images and characters'. John Evelyn doubts

¹² Astell, 'Character of a Vertuoso', 97.

¹³ Shadwell, *Virtuoso*, II.ii.191–2. The work of Cox and Hooke is described by R. G. Frank, Jr, *Harvey and the Oxford Physiologists: A Study of Scientific Ideas* (Berkeley, 1980), 202.

¹⁴ Shadwell, Virtuoso, II.ii.197–9.

¹⁵ Shadwell, Virtuoso, V.ii.114–16.

¹⁶ T. Nashe, 'The Commendation of Antiquaries' in *Pierce Penilesse his Supplication to the Devil* (Harmondsworth, 1972), 80.

¹⁷ Donne, 'Antiquary' in Poetical Works, 68; and 'Variety in the Number' in Essays in Divinity,

the taste of the antiquary who would 'spend his time in raking a Tinkers Shop for a rusty piece of Copper'. 18 For John Earle, the preservationist antiquarian who would 'goe you forty miles to see a saint's well or a ruined abbey, and if there be but a cross or a stone footstool in the way, hee'll be considering it so long, till he forget his journey' is suffering from a kind of derangement. 19 Evelyn argues that we should imitate God, who is 'always so full of Employment', and grouses that if He behaved like antiquaries, 'the whole Universe it self had been still but a rude and indigested Cäos'.20 Chaos of one sort or another is the invariable situation of the spoof virtuoso and curioso, a mirror of the primary human intellectual condition that the serious collection is meant to redress.21 Like the obsessively experimental Sir Nicholas, whose household goes wild while he potters among his dissections and his swimming lessons, the antiquarian curioso is distracted from the essential business of life by the object of his study. The comic writers revel in his bizarre unworldliness, in the strangeness of the things he collects and investigates, in the mystical ordering of his collection, in his monomania (equivalent to a kind of humoural imbalance), and in the decadence of the times which permit such behaviours to flourish.22 They seem to forget that the real and threatening power of the 'cold causes' of the Society of Antiquaries (founded in 1572) were wound up by an uneasy King James early in his reign as potentially prejudicial to royal prerogatives; and the 'rubbish' of Cotton's celebrated library was sequestered by Charles in 1629.23

Shadwell's *The Virtuoso* is probably the most extended, informed and zany portrait of experimental futility, an ongoing *donnée* in seventeenth-century literature. Sir Nicholas Gimcrack is an amateur experimenter but also a collector of curiosities. He keeps bottled air from various parts of the country and foregoes the inconvenience of travel or even of exercise by inhaling the

ed. E. Simpson (Oxford, 1952), 56.

J. Evelyn, Publick Employment (London, 1667), 95.

¹⁹ J. Earle, 'The Antiquary' in *Microcosmography*, ed. A.S. West (Cambridge, 1897; repr. 1951), 57–8.

²⁰ Evelyn, Publick Employment, 115.

Scientific enquiry was understood by many of its early modern practitioners as a devotional act attempting to repair original sin by reconstructing the fractured body of knowledge. See C. Webster, *The Great Instauration: Science, Medicine and Reform,* 1626–1660 (New York, 1976); and J. Bennett and S. Mandelbrote, *The Garden, the Ark, the Tower, the Temple: Biblical Metaphors of Knowledge in Early Modern Europe* (Oxford, 1998).

Piggott notes that the antiquarian spoof was still being produced, somewhat wearisomely, as late as 1821 (*Ancient Britons*, 18). The curiosity plays are particularly adept in the perils of scholarly distraction: these include Marmion's *Antiquary* (1636), Wilson's *The Projectors* (1665), Shadwell's *The Virtuoso* (1675), John Dryden's *Sir Martin Mar-All* (1668), Gay, Pope and Arbuthnot's *Three Hours After Marriage* (1717), as well as Goldoni's *La Famiglia dell'Antiquario* (1750).

²³ K. Sharpe, Sir Robert Cotton, 1586–1631: History and Politics in Early Modern England (Oxford, 1979), 80, 36; and Parry, Trophies of Time, 44.

country air of Newmarket, Bury and Norwich in his own house.²⁴ He is first seen learning to swim upon a trunk in his lab, a skill which he has no intention ever of trying out in the water. He is, he claims with pride, content with 'the speculative part of swimming; I care not for the practice. I seldom bring anything to use, 'tis not my way. Knowledge is my ultimate end.' He has managed to read the Geneva Bible by the light of a rotting leg of pork, an inspiration derived by him from 'a lucid sirloin of beef which shone in the Strand'.25 Rotting foodstuff, perhaps a sign of faulty domestic economy, is for Sir Nicholas no crisis but an astonishing (if expensive) light-source; in his disarranged world even the proper use and valuation of basic commodities are turned on their heads. Curiosity and its practices, as Sir Nicholas's behaviour indicates, are also to a large extent dependent upon leisure and disposable income, and so the literary discourse of curiosity wavers between the turpitude of genteel idleness which leads to folly, and the noble ambition of disinterested learning which leads to improvements of one kind or another. When John Evelyn praises Robert Boyle, he is careful to link his scientific activities to selfless and world-improving employment: 'there lives not a Person in the World,' says Evelyn, 'whose moments are more employ'd then Mr Boyles ... there is nothing more publick than the good he's always doing.'26

The spoof genre obliquely attaches itself to the discussions of civility and civil discourse which govern the development of and attitudes toward scientific behaviour and cooperative endeavour, areas which were usually framed in the theological terms of admiration of and moral duty to the Creator, or in political terms alluding to the public good and the flourishing of the commonwealth. The spoofs more directly introduce a hard-edged, socially exact and personalised set of criticisms about utility, productiveness and propriety in the individual, a set of allegations which reduce the sometimes grandiose claims of the Royal Society and its antecedent polemicists (who speak of the restoration of innocence, the advancement of learning and the promulgation of a mighty nation) to domestic, familial examples in which the neglect of such aims by the silly 'curious' is immediately harmful to microsocial practices (household economy, respect for elders, the governing of children, and so on) from which nations are built and on which they depend. The English spoofs consider the social penalty of curiosity when it is practised in the main by well-to-do persons who ought instead to be looking after their families and communities as landowners, justices and professional men with substantial financial interest and political clout. The spoofs, in other words,

This is an echo of one of Hooke's enquiries for Iceland in 1662–3, a project in which Browne participated (see *The Posthumous Works of Robert Hooke*, ed. Richard Waller [London, 1705], 101).

²⁵ Shadwell, *Virtuoso*, V.ii.27. This phenomenon was discussed by Boyle in 'Some Observations about Shining Flesh, Both of Veal and of Pullet' (1672).

²⁶ Evelyn, Publick Employment, 118–19.

portray the antiquarian and experimentalist as derelict, uncivil, and his curious matter as an image of incivility itself.²⁷

II

Urne-Buriall, written almost twenty years before Musæum Clausum, is a kind of satire on antiquarianism, to the extent that it employs that same specificity and exhibits its relentlessly learned and ungainsayable accumulation of facts only to bring the laboriously constructed edifice of examples to dissolution in the final chapter, where Browne concludes that just as urns and tombs cannot guarantee lasting memory, no amount of learning can secure what we have lost; and Urne-Buriall itself enacts that defeat, with the endlessly instantiated first four chapters going aground, so to speak, on the hard rock of the fifth. But Urne-Buriall, if it is a satire at all, is not of the same kind as the spoofs. For Browne, the labours of the antiquarian moralise the remoteness and loss of the past: the efforts of the scholar are not risible but instead a necessary and sadly instructive labour which teaches us about our own helplessness and mortality. Thus his more typical contribution to the spoof genre is, by contrast, of a very different order, though no less thoughtful, no less melancholy.

The mood and messages of Browne's Musæum Clausum must therefore be judged in the light not only of the well-established spoof tradition, but also of his own enormous curiosity, and particularly the curiosity on display in *Urne*-Buriall. In the dedicatory letter of *Urne-Buriall* (1658) the doctor of medicine and practising general physician remarks that 'to preserve the living, and make the dead to live, ... is not impertinent unto our profession. ²⁸ Although making the dead to live – resurrection by physic – is also, in his neat analogy, the preserve of the antiquarian as restorer of moribund knowledge, the Walsingham urns, he admits, 'arose as they lay', apparently without antiquarian aid. Some early modern English curiosi, especially antiquaries like Camden, Weever, Dugdale and Aubrey, attempted such resurrections – reconstructions of fragmented remains, scattered histories and decayed languages - by producing annals, genealogies, chronicles, chorographies and surveys. Under a similar impulse, naturalists - notably the careful taxonomists like Ray, Lister and Merrett - laboured to name, catalogue and order the variety of flora and fauna in encyclopaedias and collections. Both antiquarians and naturalists were

The most extreme complaint of this kind is by John Norris, who asks: 'Is there anything more Absurd and Impertinent [than] a Man who has so great a concern upon his Hands as the Preparing for Eternity, all busy and taken up with *Quadrants*, and *Telescopes*, *Furnaces*, *Syphons*, and *Air-Pumps*?' *Reflections upon the Conduct of Human Life* (1690), quoted in Hunter, *Science and Society*, 175.

Thomas Browne, *Urne-Buriall*, in Keynes, *Works*, vol. 1 (hereafter cited as *U-B*), 'Dedicatory Letter', 133.

animated partly by a sense of intellectual disorder and ruin requiring learned ministration and reparation. For Browne, however, curiosity tries, and fails, to perform the work of reconstruction of a splintered reality. That the purposes of collecting and curiosity in seventeenth-century thought are sobering as well as (or rather than) purely enlivening, celebratory or recuperative, is clear in *Urne-Buriall*, where Browne betrays his Pyrrhonist sense of the whole project of enquiry, and in the more marginal *Musæum Clausum*, which harnesses to that doubt the comedic scepticism of the spoof by converting the despondency of *Urne-Buriall* into a different kind of melancholy. In *Musæum Clausum* the recognition of self-defeat is transformed into the wry, sceptical acknowledgement of the merely equivocal and partial.

Both a naturalist and an antiquarian, tempted by and even a contributor to some historical reconstructions, Browne was more drawn to the aesthetic of loss, of incompleteness, than to reconstruction.²⁹ For him, incompletion is the penalty of Adam, and the deficit in creation and knowledge, however attempted, will *never* be supplied by mere antiquarians and naturalists, because the only possible recuperation and reminiscence of all things is the one promised by the prophets at the end of the world. Browne is therefore specifically interested in oblivion and its effects, namely that the recollection of the past from the grave of time cannot be fully accomplished by recourse to the survivals of the present day, and must remain entirely more hypothetical, more conjectural. In sensibility he is akin less to the English antiquarians and closer to the Italians: like Bosio, he lingers on 'occultati, dispersi, mescolati', things hidden, scattered, mixed.³⁰

He is as moved by the obscurities of ruin as he is by the specificities of rediscovery; and, willing to speak equivocally and with ingrained qualification, his rhetorical habits themselves are inflected by this speculative necessity, his open-ended and contingent syntactical rhythms allowing reinterpretation, qualification and extension. In *Religio Medici* he writes, almost in the tone of an expanded *credo*,

I beleeve that our estranged and divided ashes shall unite againe; that our separated dust, after so many pilgrimages and transformations into the parts of mineralls, Plants, Animals, Elements, shall at the voyce of God returne into their primitive shapes, and joyne againe to make up their primary and predestinated formes. ... As at the Creation of the world all the distinct species that wee behold, lay involved in one masse till the fruitfull voyce of God separated this united multitude into its several species: so at the last day, when these corrupted reliques shall be scattered

²⁹ Michael Hunter connects reconstruction with earlier antiquarian practice; however, this does not easily square with the output of the mainstream of English antiquaries who were Browne's direct antecedents (M. Hunter, *John Aubrey and the Realm of Learning* [London, 1975], 26). Thematically Browne is in fact far closer to poets like Spenser in *The Ruines of Times* and *A Theatre for Worldlings*.

³º A. Bosio, Roma Sotterranea (Rome, 1632), 6.

in the wildernesse of formes, and seeme to have forgot their proper habits, God by a powerfull voyce shall command them backe to their proper shapes, and call them out by their single individuals.³¹

This is an essentially Augustinian account of the resurrection, when God will reconvene whole bodies from remnants. It echoes the vision of Ezekiel (a crucial Brownean subtext, particularly for *Urne-Buriall*) in which a valley of bones is reconstituted, a type of Christian resurrection and an essentially *orderly* conception of the afterlife whose theological notion of cleansing and purification was a well-understood analogue of the putting in order, the almost domestic economy, of systematic curious array.³² God at the last trump, and the antiquarian imitating God, sort and rearrange the world's clutter; relics of all categories are put into their rightful places and systems.

Browne's approach to the project of curiosity, to 'the redemption of truth', is – especially in his earlier works, *Religio Medici* and *Pseudodoxia Epidemica* – primarily a Baconian vision of the assembly of the world's analect; but in his later work the forces of decay, dispersal and disorder always seem near at hand, and even the last chapter of *Pseudodoxia Epidemica* seems to retreat in despair before an annihilating tendency which irretrievably damages the project of reassembly apparently represented by the rest of the book. In an important passage of *Urne-Buriall*'s dedicatory letter, Browne shows that such mustering of divided fragments is at best a sad postlapsarian duty:

'Tis opportune to look back upon old times, and contemplate our Forefathers. Great examples grow thin, and to be fetched from the passed world. Simplicity flies away, and iniquity comes at long strides upon us. We have enough to do to make up our selves from present and passed times, and the whole stage of things scarce serveth for our instruction. A compleat peece of vertue must be made up from the *Centos* of all ages, as all the beauties of *Greece* could make but one handsome *Venus*.³³

The cento – the anthology, or patchwork, or analect – is an apt figure for his abiding sense of the doubtful, necessary project of restoring decayed knowledge. Because it is a *re*constitution from parts, its energetic and orderly structure is nevertheless one which betrays in its careful mosaic the very fragments it is meant to repair, much as an urn in shards pieced together by the restorer shows us the remarkable but clearly imperfect type of the undamaged original. Curiosity, the primary human fault, paradoxically reminds us, in repairing those fragments, of ruin, a paradox illustrated in *Urne-Buriall* by the figure of antique brass items retrieved from underground which immediately begin to oxidise and decay, 'to spot and betray their green

³¹ RM, I.48.

Ezekiel 37:1–10. See, for example, G. Goodman. *The Fall of Man* (1616), 394; G. Hakewill, *An Apologie for the Power and Providence of God* (London, 1627), 13; and R. Hooke, *Micrographia* (London, 1665), a1^v and b2^r.

³³ *U-B*, 'Dedicatory letter', 132.

entrals'.³⁴ The antiquarian and the investigator are implicated in this curiosity and in this paradox; and thus the darker regions of enquiry, where 'the attempts of some have been precipitous, and their enquiries so audacious as to come within the command of the flaming swords', seem contiguous with those of Satan himself, who first incited the penalty of curiosity.³⁵ The very belatedness of antiquarian assemblage, the fact that it attempts to replicate an irreplicable original, is for Browne an essential figure of imperfection.

This metaphor of the cento, of reconstitution, although a governing idea in much of his work, is most extensively elaborated by Browne in *Urne-Buriall*. A work which enacts its own subject, *Urne-Buriall* argues not only the uselessness of memorial practices, but also the fruitlessness of antiquarian enquiry about them. Rather than extend our curiosity too far, Browne intimates that our ignorance of past evils is, in compensation, 'a mercifull provision' by which 'our sorrows are not kept raw by the edge of repetitions', ³⁶ and another paradox is generated. The recuperation of the past, he warns, may not be risk-free: if 'reminsicentiall evocation', as he calls it in *Pseudodoxia Epidemica*, restores knowledge, the mercy of forgetting is compromised by reminiscence. As ever, Browne's attitude to the subject of investigation is equivocal. The penalty of curiosity is destruction; that of reminiscence, remorse. 'To be unknown was the means of their continuation', he says of the Walsingham urns, 'and obscurity their protection.' He frames his subsequent discourse of rediscovery as an examination of hazard.

Images of erasure and effacement, like the oxidisation of the recovered brass, are common in *Urne-Buriall*, and even the sturdiest metals are not proof against human obliteration: burial coins ought to enable after-discovery to assign 'actions, persons, chronologies', but British coins are almost unknown, and Saxon coins were restamped and reused;³⁸ Spartan copper was voluntarily defaced with vinegar. Grave-robbery, likewise, has indiscriminately destroyed the sepulchral records of many peoples, especially carnal interments, which are particularly vulnerable to 'desecrations which are escaped by cremation':

To be knav'd out of our graves, to have our sculs made drinking-bowls, and our bones turned into Pipes, to delight and sport our Enemies, are Tragical abominations, escaped in burning Burials.³⁹

The pillager and the antiquarian are equally efficient defacers of identity and history; the latter, too, 'knaves' the past out of its grave, if only by reading the

³⁴ *U-B*, III.150.

³⁵ T. Browne, *Pseudodoxia Epidemica*, ed. R. Robbins (Oxford, 1981) [hereafter cited as *PE*], I.v.30.

³⁶ *U-B*, V.168.

³⁷ *U-B*, V.164.

³⁸ *U-B*, IV.160.

³⁹ *U-B*, III.155.

dead by bare inscriptions. If brigands plunder relics and consign their meaning and identity to oblivion, antiquarians also rifle them in their interpretive excavation of meaning in order to bring their purpose and identity to light. Browne's final flourish on the antiquarian task is similarly equivocal:

If in the decretory term of the world we shall not all dye but be changed, according to received translation, the last day will make but few graves; at least quick Resurrections will anticipate lasting Sepultures; Some Graves will be opened before they be quite closed⁴⁰

Resurrection, the type and end of antiquarian re-collection, will itself frustrate memory by obviating graves, the antiquary's surest record. The carefully re-collective *Urne-Buriall* ends in an extravaganza on forgetfulness, on the coming obsolescence of record and of memory. Browne's sense of that obsolescence is equally illuminated by *Musæum Clausum*, a work which entertains *Pseudodoxia Epidemica*'s optimism of reconstitution but settles on *Urne-Buriall*'s frankly dark recognition of its futility.

III

Donne's *Courtier's Library* (c.1594?–1611) and Browne's *Musæum Clausum* (c.1674) are two extended English examples of the curiosity spoof which propose serious ideas about the nature and purpose of collecting and enquiry.⁴¹ Somewhat surprisingly, however, both have attracted from editors merely casual judgements like 'whimsical', 'amusing' and 'jeu d'esprit'.⁴² These exercises are undoubtedly designed partly for entertainment, but it is also clear that they carry altogether more serious burdens. Each is precisely situated within the social framework of learning – Donne's *Library* is in fact a Latin work – to which the very form of the library or collection catalogue is familiar and self-explanatory. The imagined audiences of each of these works are ones already well-acquainted with the format and purpose of such lists, and with the habit of assemblage practised by genteel individuals.

Donne's is a collection, as its preface makes clear, only available to a certain courtly echelon which he seems to know all too well. This tract is designed as a sort of bluffer's guide to erudition: the average courtier hasn't read much,

⁴º U-B, V.169-70.

⁴¹ J. Donne, *The Courtier's Library, or Catalogus Librorum Aulicorum*, ed. E. Simpson (London, 1930) [hereafter cited as *Courtier's Library*], 42.

⁴² C. A. Patrides glancingly characterises *Musæum Clausum* as a parody of indiscriminate collecting practices ("The Best Part of Nothing": Sir Thomas Browne and the Strategy of Indirection' in C. A. Patrides [ed.], *Approaches to Sir Thomas Browne: The Ann Arbor Tercentenary Lectures and Essays* [Columbia, Missouri and London, 1982], 31–48, 33); Marjorie Swann interprets it within the networks of social exchange and status-building (M. Swann, *Curiosity and Texts: The Culture of Collecting in Early Modern England* [Philadelphia, 2001], 132–3).

but has to behave otherwise. Donne advises against recourse to the epitomes that everyone reads for the purpose of disguising scant attainments; rather, the really adept ignoramus should master works so obscure that quotation from them will be bound to impress 'people who previously fancied they knew everything' when they 'hear of authors entirely new to them'.⁴³ Sniping at the vacuousness of courtly accomplishment (he notes that with their late hours and elaborate *toilettes*, most courtiers have little time for reading anyway), Donne reminds his coterie audience simultaneously of its exclusivity and its superficiality. Although the preface begins with a standard Ciceronian complaint against an age of illiteracy and the incompleteness of knowledge, the work seems initially to propose itself as a typical comic squib.

Some of the items are purely amusing: there is the lampooned mysticism and hermetic philosophy of Pico and Dee in a work explaining the significant patterns of the hairs on the tail of Tobit's dog; a treatise credited to the unreliable polymath Cardano called *On the Nullibiety of Breaking Wind*; the more reliable encyclopaedism of Aldrovandi behind the prolix and vaunting title *Quis non? Or, a Refutation of all the errors, past, present, and future, not only in theology but in the other branches of knowledge, and the technical arts of all men dead, living, and as yet unborn,* a work described by Donne as having been 'put together in a single night after supper by Dr Sutcliffe'.⁴⁴ A book explaining the sexing of atoms, and another purportedly by Walter Cope, a well-known antiquary, on testing the age and authenticity of antiquities, accuse experimental and antiquarian curiosity at a surprisingly early moment in England. Naughtily entitled *Believe in Thy Havings and Thou Hast Them,* the Cope book is a clear thrust at the trash being acquired as legitimately antique by wilfully deluded *curiosi*.

Many of the items in *Courtier's Library* are, however, far from comic. This learned spoof is tartly acidulated with exact and vengeful scorn against the named authors of various religious and political outrages, and especially Protestant enforcers and informers.⁴⁵ One book on anti-Catholic persecutions is said to be written by Richard Topcliffe, the ruthless inquisitor of recusants, a man so notorious that the verb *topcliffizzare* entered the language for a time as slang for 'to inform against'. Foxe's massive *Book of Martyrs*, regarded as a series of lies by English Catholics, is here reduced to something the size of a penny-piece by copying out only its truthful elements. *Anything out of Anything, or the Art of Deciphering and Finding Some Treason in Any Intercepted Letter* is a book said to have been written by Walsingham's dirty-tricks expert, Thomas Philips; Sutcliffe, author of the preposterous *Quis non?*, was also a well-known

⁴³ J. Donne, The Courtier's Library, 42.

⁴⁴ This is reminiscent of Aldrovandi's *Acanthologia, sive historia universalis omnium rerum* ... (see Lodovico Frati, *Catalogo dei Manoscritti di Ulisse Aldrovandi* [Bologna, 1907], items 86–7).

Evelyn Simpson reads it in a far lighter vein (*Courtier's Library*, 24–5); John Carey, however, describes it as 'a bitter little satire' (J. Carey, *John Donne: Life, Mind and Art* [London, 1981], 21).

anti-Catholic controversialist. Most biting are two works associated with the trial and execution of Donne's hero, Essex, one of them on Francis Bacon's perfidy as Essex's erstwhile friend and subsequent accuser. Works, in short, on intrigue, betrayal, persecution, ignorance, pomposity and flattery are all listed as appropriate and efficient holdings in such a collection, and Donne implicitly derides it: these are stupid and useless books written mainly by or about – and by extension, for – terrible people; he mocks the intelligence and character of his imagined audience even by suggesting such reading material to them. This library of bad memories, regrets, stupidities, insults and horrors ultimately makes melancholy and uncomfortable reading.

By contrast, Browne's Musæum Clausum, or Bibliotheca Abscondita (the locked [concealed] museum, or the lost library), is purportedly a catalogue of a vanished collection of books, pictures and curiosities. Unpublished in his lifetime, it probably dates, on internal evidence, from the mid-1670s, the last decade of his life and more than half a century after Donne's catalogue. At this time his reputation as a polymath and savant had long since secured him a wide-ranging and flourishing correspondence with the leading scientists, scholars and antiquarians of his day; and Musæum Clausum is addressed as a thank-you note to a learned friend – possibly Walter Charleton, the naturalist and founder-member of the Royal Society – for scholarly cooperation and consultation. Like other cabinet-spoofs, Musæum Clausum displays learned scepticism about certain items, shows knowledge of real cabinets, and contains jokes about the more ludicrous areas of scholarly debate. It is prefaced by a brief epistolary section in which Browne returns with thanks a borrowed catalogue of an unnamed collection of books, rarities and 'Singularities of Art and Nature', a catalogue which he compares with easy familiarity to those of Aldrovandi, Calceolari, Moscardi and Worm, as well as to famous ducal and imperial collections.⁴⁶ In other words, the setting of Musæum Clausum is that of the civil exchange of material and information associated with gentility, as we would expect between Browne and his correspondents, a reminder of the self-appointed task of cooperating 'advancers' as expressed in Pseudodoxia Epidemica, to reinstate the sum of knowledge. The catalogue of Musæum Clausum, offered as a return for an initial favour, is inspired by the occasion and practices of intellectual civility familiar to cabinet-collectors and naturalists all over Europe, and is introduced as a vignette of the values and impulses of scholarly civility, just as Donne's insults in The Courtier's Library are an uncivil response to the abettors of incivility.

The eighteenth-century sale catalogue of the combined libraries of Thomas and Edward Browne contains a number of these catalogues (see *A Catalogue of the Libraries of Sir Thomas Browne and Dr Edward Browne, His Son* [facsimile of 1710 auction catalogue], ed. J. Finch [Leiden, 1986], 18 and 23). *PE* and other works make further references which indicate that Browne was familiar with still other catalogues which he may not have owned.

Musæum Clausum is, like The Courtier's Library, a straightforward catalogue list, but where Donne's consists only of books, Browne has artefacts as well. Like many of the great collections (for instance, Aldrovandi's), Browne's doesn't distinguish between a library collection and an object collection.⁴⁷ Divided into three sections - books, pictures, and antiquities and rarities - the list reflects the variety and peculiarity of the 'collectible', and none of the sections has any obvious thematic consistency. Its textual curiosities include 'an exact account' of the death of Averrhoes from the over-enthusiastic application of a colic-cure; 'a punctual relation' of Hannibal's crossing of the Alps, especially of the type and quantity of vinegar he used to break the rocks;48 lost plays by Diogenes the Cynic; Seneca's epistles to St Paul; two books by Julius Caesar; and a letter to Cicero from his brother in Britain. The pictures in this museum are either technically marvellous, deploying astonishing light-effects to suggest moonlight, snowscapes and submarine scenes; or they represent marvels – great events such as battles and banquets, or curious artefacts such as leaning towers, caricatures of the famous and facial likenesses ('Charles the First and one Osborn, an hedger' or 'Henry IV of France and a miller of Languedock'). Among the typical antiquities and rarities are some slightly unusual medals and inscriptions, as well as weirder wonders: an ostrich egg engraved with the battle of Alcazar, a stone febrifuge, sargasso salt (an antiscorbutic), an alarming receipt for a laxative purge called 'Diarrhizon mirificium', and 'Batrachomyomachia, or the Homerican Battel between Frogs and Mice, neatly described upon the Chizel Bone of a large Pike's Jaw'.49

Browne's humour, if recondite, is unmistakable to those familiar with collecting and with specific collections. The *Batrachomyomachia* sends up the fad for microscopic manufactures such as hundreds of heads carved on a cherrystone, or the narrative engraving of gems so familiar from existing cabinets. Some of the items are overtly fanciful, such as Seneca's letters to Paul,⁵⁰ and the aetherial salts so volatile that they can only be examined by the light of the Bononian Stone, or Galileo's barium sulphide (probably a glance at the fascination with natural fluorescence mentioned by Shadwell and investigated by Hooke and Boyle). The eagle stone (a geode containing loose fragments, thought to avert miscarriage), souvenirs of specific events such as the Doge's ring found in the belly of a fish caught in the Adriatic, and various

⁴⁷ See S. Bann, *Under the Sign: John Bargrave as Collector, Traveler, and Witness* (Ann Arbor, 1994), 84; and L. Laurencich-Minelli, 'Museography and Ethnographical Collections in Bologna during the Sixteenth and Seventeenth Centuries' in Impey and MacGregor, *Origins of Museums*, 17–23, 22.

⁴⁸ Browne had already pronounced authoritatively in *Pseudodoxia Epidemica*: 'an ocean of vinegar too little for that effect!' (*PE*, VII.xviii.600).

⁴⁹ Thomas Browne, *Musæum Clausum*, *or Bibliotheca Abscondita*, in Keynes (ed.), *Works*, vol. 3 [hereafter cited as *MC*], 119.

There was an attractive but apocryphal tradition in which Seneca and Paul corresponded, a tradition doubtless fostered by the clear Stoic influences upon the Apostle, and possibly by the encounter between Seneca's elder brother, an imperial administrator, and Paul (Acts 18:12).



5.1 'Frenchman's finger' from the collection of John Bargrave, Canterbury Cathedral. By kind permission of the Dean and Chapter of Canterbury.

naturalia like squid ink (against hysteria) – all these are actual or generically typical elements of contemporary collections.

Browne's acquaintance with the catalogues of some of the great continental cabinets is certain; but collecting ideally also promoted more local networks of civil exchange, and *Musæum Clausum* shows that Browne and his correspondent were aware, probably through John Evelyn, of the modest cabinet of Canon John Bargrave of Canterbury, who had travelled on the continent at midcentury.⁵¹ In most respects a typical tourist's collection, Bargrave's had at least one odd curio – the finger of a Frenchman bought in Toulouse in about 1646 (Fig. 5.1). The Franciscan church of the Cordeliers at Toulouse had human remains for sale from its vaults, and Bargrave was initially offered the entire body of a baby which he had to decline as too large a souvenir to be acquired on the outward journey. He selected the finger instead.⁵² Browne caricatures this somewhat disconcerting item as:

⁵¹ For a biography of Bargrave, see Bann, *Under the Sign*.

⁵² Browne almost certainly had no direct contact with Bargrave, but the genteel intermediation of other savants is the obvious channel of information. John Evelyn knew and visited both Bargrave and Browne, and as a member of the Royal Society also knew Walter Charleton, the presumed recipient of *Musæum Clausum*. See Bann, *Under the Sign*, 69 and 76; also D. Sturdy and M. Henig (eds), *The Gentle Traveller* (Abingdon, 1983), 14. Browne had, however, visited the vaults of the Cordeliers and knew of their trade in dried body-parts (*Observations in Anatomy*, in Keynes [ed.], *Works*, iii, 340).

Mummia Tholosana; or, The complete Head and Body of Father Crispin, buried long ago in the Vault of the Cordeliers at Tholouse, where the Skins of the dead so drie and parch up without corruption that their persons may be known very long after, with this Inscription, Ecce iterum Crispinus [behold Crispin anew].⁵³

What sort of joke is this? Why would Browne's imaginary, ideal collection contain a French corpse? One answer might be the fascination with miraculously preserved bodies which occupied many investigators throughout the century, and was speculated on by divines and natural philosophers alike, including Browne.⁵⁴ He was probably amused by fake relics, of which the gullible (or greedy) Bargrave possessed thirty-four: that the pious reassembly of, and reverence for, the scattered parts of martyrs made not one but many saints of the same name was an unintentional parody of divine creation and resurrection. The indiscriminate tourist's appetite for vulgar and worthless souvenirs as authentications of past personal experience may also have interested him.

The relation between Bargrave's real finger and Browne's imaginary corpse is, of course, speculative, a joke relying on a punchline not actually given in Musæum Clausum. Charleton and Browne knew of Bargrave's cabinet (other references to it in Musæum Clausum confirm this), so Browne's joke depends upon an intertext – or, more precisely, an 'interfact' – exterior to the boundaries of the catalogue itself. That interfact is the Bargrave collection, and more specifically the Frenchman's finger it contains. Although Bargrave attached no name to the owner of his French finger, Browne christens his relic Crispinus. The phrase 'Ecce Crispinus' is Horace's personification of the babbler;55 'Ecce iterum Crispinus' is Samuel Butler's epigraph against Sidrophel, a thoughtless and grasping virtuoso in the style of Sir Nicholas Gimcrack, enthusiastically resisting 'wholesome sense and Nurture'.56 The Frenchman's body in Musæum Clausum is a comic fantasy evolved from knowledge of the bizarre trophy held by Dr Bargrave, from Browne's reading of Butler, and from his recollection of Horace. Intertext and interfact, the Horace-Butler Crispin and the body nominated as Crispin's allude to a network of common pursuit, literary community and social habit, to the

⁵³ MC, 117.

⁵⁴ See, for example, *U-B*, III.117 on the body of the Marquis of Dorset; see also John Aubrey on the body of Bishop Braybrook (J. Aubrey, *Monumenta Britannica*, ed. J. Fowles and R. Legg, 2 vols [Sherborne, 1982], ii, 750).

⁵⁵ Horace, Satire IV in Horace: Satires, Epistles, and Ars Poetica, trans. H. Rushton Fairclough (London and New York, 1926), ll. 13–14. Jonson presents his cruel portrait of Marston under this name in *Poetaster* (1600–1601).

⁵⁶ Ecce iterum Crispinus had been applied by Juvenal to a rich glutton in his Satire IV, but the Crispin of Horace is thematically the more likely source of Browne's and Butler's inspiration. The 'Heroical Epistle' appeared in the edition of 1674, a date which may help us to establish the date of Musæum Clausum. Browne commented in his notebook on his reading of Hudibras. See 'The Heroical Epistle of Hudibras to Sidrophel' in S. Butler, Hudibras, ed. J. Wilders (Oxford, 1967), 1. 36.

joined-together quality of early-modern civil intellectual and informational exchange.⁵⁷ But it is a unitary quality that is in fact at odds with *Musæum Clausum* itself.

The Bargrave finger is undoubtedly silly, and Browne's Father Crispin – a babbling, desiccated carcass – pokes fun, perhaps, at antiquarian frivolity. But this interfact is also implicated in a network through which Browne's Frenchman, initially Bargrave's nameless and disembodied finger, is 'translated' into an entire, identified persona. The anonymous owner of Bargrave's digit is resurrected by Browne in his whole body. The key word here is *iterum* – 'anew', or 'again' – and the move from '*Ecce'* to '*Ecce iterum*' is from epitaph to resurrection, the difference between the interred Crispin and the risen one. The antiquary as resurrectionist – if that's what this is – is an idea present in the dedicatory letter of *Urne-Buriall*, whose purpose is 'to preserve the living, and make the dead to live, to keep men out of their urnes'. ⁵⁸ This note is also seconded by others in the period. Thomas Philipot describes the antiquary in 1646 as one who

... from that rude and blended Masse, can bring Their dead remembrance out, and can new wing Those thus rais'd up to life, ... can peece up mens scatter'd dust⁵⁹

The antiquary, in this vision, has power to 'peece up' mankind like a cento; his study 'is the publike Ark / In which the memories of men embark'. ⁶⁰ A later elegy on John Selden turns this antiquarian into a *redeemer*: 'that brave recorder of the world when age and mischief had conspired and hurled vast kingdoms into shattered heaps; who could redeem them from their vaults of dust and mould.' ⁶¹ Browne himself, in an undergraduate poem on the death of Camden, asked 'how dost thou, cruel England, / Suffer him to die, *through whom thou livest whole?* [my italics]. ⁶² For Browne, the Bargrave finger is a signature of resurrection, cognate with his thinking about the scattered wilderness of forms to be called out at the last day by the voice of God. But equally it is a pathetic funereal fragment, the finger as the scattered final

⁵⁷ Discussion of such exchange networks is included in S. Shapin, A Social History of Truth: Civility and Science in Seventeenth-Century England (Chicago, 1994); P. N. Miller, Peiresc's Europe: Learning and Virtue in the Seventeenth Century (New Haven and London, 2000); and Frank, Harvey and the Oxford Physiologists.

⁵⁸ *U-B*, 'Dedicatory letter', 132.

⁵⁹ T. Philipot, 'On the Sight of Some Rare Pieces and Monuments of Antiquitie, in an Antiquaries Studie' in *Poems* (London, 1646), ll. 24–33.

⁶⁰ Philipot, 'Pieces and Monuments of Antiquitie', ll. 37–8.

⁶¹ R. Fletcher, 'On the Much to be Lamented Death of that Gallant Antiquary ... John Selden Esquire' in *Ex otio Negotium* (London, 1656), 232.

⁶² T. Browne, 'Camden Insignia' ('Vivat sepultus, dura quid pateris mori, / Quo tota vivis, Anglia?') in Keynes, Works, iii, 146–7.

testament of a life now 'parched up', of a world of words (in this case, the prolixity of the imagined Crispinus) reduced to a single, perhaps deictic, body-part which forms a wordless gesture. This is a theme familiar from *Urne-Buriall*, where the reductive power of death makes Methusaleh's *age* his only chronicle, 'spares the epitaph of Adrian's horse, confounds that of himself'. ⁶³ The Bargrave finger is a reduction which initially attracts mirth and even satire from Browne; but this mirth retreats before a more thoughtful and equivocal sense of the meaning of the purely reliquary.

The lone, shrivelled bit of flesh in Bargrave's cabinet grown into a body labelled by Browne as the semi-resurrected Crispin is one of a range of more disturbed, melancholic ideas which insistently disrupt the ludic quality of *Musæum Clausum*. This museum, lost from view and knowledge, contains many items which are themselves famously absent from history: works by Ovid, Pytheas, Scaliger, Cicero, Aristotle, Diogenes, Democritus, Solomon, Confucius, and others; things, and pictures of things, which can no longer be seen, have never been seen, nor ever can be – the photosensitive aetherial salt, or the icescapes and submarine pieces; illegible inscriptions, incredible objects and recollected horrible events – the box containing the *unguentum pestiferum* which caused the great plague of Milan, the skin of a snake bred out of human spinal marrow, and a description of various tortures; some things no longer extant, some completely fanciful.

Like *Urne-Buriall, Musæum Clausum*'s lexical precision is burdened with images and ideas of scattering, fragmentation, loss, dissolution and forgetfulness. Many of the items *reputed* to be 'exact' and 'punctual' relations – oddly emphatic phrases for such obscure matters – are also said to have been left *accidentally* in foreign lands, shipwrecked, stolen or sold during wars, or reported to be, but never precisely located, in old, remote, unspecified libraries in difficult-to-reach or now-ruined places. The insistence on accuracy and authority in words like 'exact', 'punctual' and 'particular' is a helpless antagonist of the forces of dispersal, decay and accident which have occultated the collection. This cabinet of fugitive, mislaid, immaterial, represented and described things might have been enrolled in a work listed by Donne in *Courtier's Library*, Pancirolli's *de Rebus Perditis*, or *The Book of Things Lost*.⁶⁴

Browne's categories of loss are varied. The Cicero letter which has turned up in *Musæum Clausum*, 'wherein are described the Country, State, and Manners of the Britains of that Age'⁶⁵ – a letter whose loss Browne says in *Urne-Buriall*, 'we much deplore'⁶⁶ – might have supplied precious information to those antiquarians and historiographers engaged in the authentication

⁶³ *U-B*, V.167.

⁶⁴ Donne lists several addenda to Pancirolli's *Libro de rebus perditis* and *Libro de rebus inventis*.

⁶⁵ MC, 110.

⁶⁶ *U-B*, II.145.

of English national identity and English custom by recourse to classical, specifically Roman, influence and legitimacy. It is a letter, indeed, which might have spared Browne's own error in *Urne-Buriall* where he incorrectly designates the Walsingham urns as Roman rather than Saxon. Another item is 'a particular narration' of the famous eighth-century English expedition to North Africa and the sack of Arzilla, an otherwise wholly fabulous exploit but for the Arabic account of it,67 itself wrested from the King of Fez and lost in a ship full of books and rarities being transported by the King of Spain to the Escorial. Not only is this startling suggestion of early English daring and naval capability utterly specious, with 'the English' hardly in existence at this point; the allusion to such a profound catastrophe as a shipload of books at the bottom of the sea produces a pang only a little less thrilling than the burning of the library at Alexandria. Indeed, that primal bibliographical disaster is also invoked when Browne casually mentions 'an old library at Alexandria containing eight thousand volumes'.68 The lost correspondence between Paul and Seneca is one of those remarkable possibilities which is temptingly plausible but sadly inexistent: contact between Browne's two heroes is the wishful fantasy of a thoughtful seventeenth-century intellectual who knows exactly how much has been lost from the edifice of Western learning, and dreams of it as an impossible benefit which no ransacking of old libraries can ever unearth.

When Browne thinks about the frailty of human understanding – caesuras and misapprehensions whose origin he locates in the systemic damage occasioned by the fall of man - he thinks about reparations which can be activated only by what he calls 'reminiscentiall evocation',69 a process of strenuous recollection, or re-membering of scattered, splintered and incomplete structures of knowledge. To recombine these is the intellectual project he addresses in his major works after Religio Medici. In Urne-Buriall the anthological impulse of the cento only plaintively suggests the joining together or completion of the subject. If collections like libraries, encyclopaedias and natural history compendia, and the ancillary phenomenon of the cabinet, are an orderly reconvening of scattered fragments which together again make something approaching a conceptual totality, in Musæum Clausum the reconstitution and ordering of the collection, and the superficial humour of many of the descriptions, belies a darker and altogether more serious set of ideas about dismemberment and dissolution. Here, a regrouped anthology of precious, formerly lost, things is being proposed as itself now lost. In Religio

⁶⁷ The story was familiar from Leo Africanus, and may concern the (possibly mythological) Berber leader Khwlan ('Gayland') who occupied Asilah in the early eighth century. I am most grateful to Professor David Abulafia and to Dr Raphael Lyne for advice on this item.

⁶⁸ *MC*, 112.

⁶⁹ PE, 'To the Reader', 1.

Medici Browne thinks of all creation as an analect, 'that little compendium of the sixth day' in which we behold 'the scattered and dilated pieces of those five before'. 7º *Musæum Clausum* simultaneously enacts the compendium and its dilation.

Browne writes in *Pseudodoxia Epidemica* that with our understandings 'eclipsed ... we must betake our selves to wayes of reparation ... for thus we may in some measure repaire our primarie ruins, and build our selves men againe.'71 But Pseudodoxia's initially hopeful project of reparation, the sense of the collection as reminiscence, as the gathering up of fragments as tokens of a lost compendium, is a project which Urne-Buriall and Musæum Clausum tell us is unlikely to be fulfilled by humankind. To reconvene or re-member available information about what had become a ruined, broken coherence, the 'remains of a greater whole', is ultimately the task of the Creator, not the antiquary or the naturalist. Remembrance itself is fraught with uneasy complexities; and Browne's work is a conspectus of that uneasiness. Consigning certain fearful truths to Pancirolli, Pseudodoxia Epidemica gestures in its final chapter toward the forgetfulness of the self-cancelling of *Urne-Buriall*, which dismisses its own recollective project while enacting it; and Musæum Clausum extends this with a collection which tells us only of the failure to preserve it. It might be possible to ascribe this state of mind to Browne's advancing years: he was fifty-three when *Urne-Buriall* was published, but had achieved his three score years and ten when he produced Musæum Clausum, his last formal word on the subject of curiosity. It is a word perhaps tempered by the wisdom of a long life in learning: probably the world can never be recollected and reminisced, he says in *Urne-Buriall*; the optimism and declarative energy of *Pseudodoxia* have fled. What remains is a wistful evocation in Musæum Clausum of the ambitions of curiosity and a delicately comic demonstration of its futility.

⁷⁰ *RM*, I.50, 54. 'Analect' means 'gathering up of gleanings' (*SOED*, sb., pl.); or 'crumbs that fall from the table' (*OED*, sb. 2, pl.).

⁷¹ PE, I.v.30.

Curious knowledge and wonder-working wisdom in the occult works of Heinrich Khunrath

Peter Forshaw

Thou hast taught me, O God, from my youth: and till now I will declare thy wonderful works.¹

Psalm 71:17

'The remarkable man Heinrich Khunrath [is] inflamed by the Divine Fire with an ardent desire to search out the deepest matters', and his *Amphitheatre* is a 'real Wonder-Book', writes the German poet and mystic Quirinus Kuhlmann (1651–89), who was eventually burned at the stake as a heretic.² Theophilus Aretius, author of one of the *Amphitheatre*'s lapidary poems, lauds Khunrath as the 'Divine Prometheus, Worthily from the heavens, bringing wonders to light with [this] new Amphitheatre; Scarcely seen in all the Theatres of the ancients.'³

I would like to thank the Department of Special Collections, Memorial Library, University of Wisconsin–Madison for permission to use the engravings from Khunrath's *Amphitheatre* and the British Library Manuscript Department for allowing me to use the image from Sloane MS 181. My thanks, too, to Professor Robert Evans and Alexander Marr for inviting me to contribute to their seminar and this volume. For further information on Khunrath see my 'Ora et Labora: Alchemy, Magic and Cabala in Heinrich Khunrath's *Amphitheatrum Sapientiæ Æternæ* (1609)', unpublished Ph.D. diss. (University of London, 2004).

¹ Psalm 71:17, Luther's translation: 'GOTT, Du hast mich von Jugend auff gelehret Darumb verkundige Jch Deine wunder.' The English translation is the Douay version, Vulgate Psalm 70:17.

² Q. Kuhlmann, Neubegeisterte Böhme, begreiffend Hundert funftzig Weissagungen, mit der Fünften Monarchi oder dem Jesus Reiche des Holländischen Propheten Johan Rothens übereinstimmend, und mehr als 1 000 000 000 Theosophische Fragen, allen Theologen und Gelehrten zur beantwortung vorgeleget; wiewohl nicht eine eintzige ihnen zu beantworten, wo si heutige Schulmanir sonder Gottes Geist folgen. Darin zugleich der so lang verborgene Luthrische Antichrist abgebildet wird. Zum allgemeinen besten der höchstverwirrten Christenheit, in einem freundlich sanften und eifrigfeurigem Liebesgeiste ausgefertiget an des Lutherthums Könige, Churfürsten, Printzen und Herren, wi auch allen Hohschulen und Kirchengemeinen Europens (Leiden, 1674), 72ff 'der verwunderungswerthe mann ... Er ward, umb die allertiefsten Sachen durchzuforschen, mit großer [B]egierde vom Göttlichen Feuer entflammet ... ein rechtes Wunder-Buch.'

³ H. Khunrath, Amphitheatrom Sapientiæ Æternæ, Solivs Veræ: Christiano-Kabalisticom, Divino-Magicom, nec non Physico-Chymicom, Tertrionom, Catholicon (Hanau, 1609), Part I, 13: 'Diuine Prometheu; Digne polo, qui mira nouo dans AMPHITHEATRO In Lucem: veterum vix cunctis visa Theatris.' As this work is divided into two main parts with separate pagination, susbsequent references will be to either Amph.I or Amph.II to avoid confusion.

Described as 'one of the most remarkable theosophists and alchemists of the late Sixteenth Century',⁴ and 'one of the greatest Hermetic philosophers',⁵ Heinrich Khunrath of Leipzig (1560–1605), 'doctor of both medicines and faithful lover of theosophy',⁶ is the author of a series of occult works published during the 1590s and early 1600s. The verse quoted above, from the psalter lying open on the table in front of Khunrath in his portrait in the *Amphitheatre* (Fig. 6.1), serves as a fitting introduction to this paper, the object of which is to consider the various forms of 'curious' knowledge Khunrath believed he had been taught by God and identify what he himself regarded to be their 'wonderful works'.

Even a cursory look at the titles of some of Khunrath's books reveals his enthusiastic interest in wonders, writing as he does, for example, *Of the secret, external and visible Fire of the Mages and Philosophers* (1608), the *Physico-chemical Testament* ... of the Natural, triune, wonderful and miraculous, most secret Universal Chaos of Physico-Chemists (1598), or the Catholic Magnesia of the Philosophers ... Pri-material Subject of the secret wonder-working Universal Stone of the Physico-Chemical Philosophers (1599).⁷ His 'Curieux & rare'⁸ magnum opus, the Amphitheatre of Eternal Wisdom, has been praised as an 'extraordinary work',⁹ the 'Theosophical Bible';¹⁰ indeed, 'one of the most important books in the whole literature of theosophical alchemy and the occult sciences'.¹¹ On the other hand, Khunrath has also been condemned as an 'example of alchemy's spiritual extremists',¹² accused of 'disgusting arrogance and ignorance', of writing 'not from the Spirit of God but from the ignorant devil of

^{4 [}Émile Angelo] Grillot de Givry, Witchcraft, Magic & Alchemy, trans. J. Courtenay Locke (New York, 1971), 209.

⁵ H. Khunrath, De Igne Magorum Philosophorumque secreto externo et visibili – Das ist: Philosophische Erklährung von und über dem geheimen ausserlichen sichtbaren Gludt und Flammen fewer der uhralten Magorum oder Weisen und andern wahren Philosophen (Leipzig, 1783), Vorbericht des Herausgebers, 2: 'eines der großen hermetischen Philosophen.' Hereafter referred to as De Igne.

⁶ Amph.II, 1: 'THEOSOPHIÆ amatoris fidelis, & MEDICINÆ utriusque DOCTORIS.'

⁷ De Igne Magorum Philosophorumque secreto externo et visibili – Das ist: Philosophische Erklährung von und über dem geheimen ausserlichen sichtbaren Gludt und Flammen fewer der uhralten Magorum oder Weisen und andern wahren Philosophen (Strasbourg, 1608); H. Khunrath, Symbolum Physico Chymicum ... De Chao Physico-Chymicorum Catholico, Naturali, Triuno, Mirabili atque Mirifico, Secretissimo: Lapidis Philosophorum Universalis & Magni Subiecto genuino ac proprio, Materia ve debita & Unica (Hamburg, 1598); H. Khunrath, Magnesia Catholica Philosophorum; Das ist/ Höheste Nothwendigkeit/ In Alchymia, Auch Mügliche uberkommung/ Augenscheinliche weisung/ und Gnugsame Erweisung Catholischer verborgener Magnesiæ; Des geheimen wunderthetigen Universal Steins Naturgemeß-Chymischer Philosophorum Rechten und allein wahren Pri-Materialischen Subiecti (Magdeburg, 1599).

⁸ J. B. L. Osmont, Dictionnaire Typographique, Historique et Critique des Livres Rares, Singuliers, Estimés et recherchés en tout genres, 2 vols (Paris, 1768), i, 386.

⁹ F. A. Yates, The Rosicrucian Enlightenment (London, 1972; repr. 1996), 38.

¹⁰ H. Khunrath, Warhafftiger Bericht von Philosophischen ATHANORE; auch Brauch unnd Nutzdesselbigen (Leipzig, 1783), Vorbericht des Herausgebers, 12: 'Dieses Werk, das einige die Theosophische Bibel nennen.'

¹¹ D. I. Duveen, Bibliotheca Alchemica et Chemica (London, 1949), 319.

¹² A. Coudert, Alchemy: The Philosopher's Stone (London, 1980), 91.



6.1 Portrait of Heinrich Khunrath from Heinrich Khunrath, *Amphitheatrum Sapientiæ Æternæ* (1609). By courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin-Madison.

pride',¹³ and was proclaimed a heretic in his lifetime.¹⁴ The *Amphitheatre* has been derided as a 'theosophical-magical and astrological frenzy',¹⁵ and was condemned by the Sorbonne in 1625 as

pernicious, blasphemous, impious and dangerous to faith ... a damnable book swarming with impieties, errors and heresies and the continuous sacrilegious profanation of passages from Holy Scripture, and abusing the very sacred mysteries of the Catholic Religion, precisely in order to entice its readers into the secret and pernicious arts. Wherefore it has been judged that [this] pestilential work cannot be read anywhere without peril to faith, damage to Religion, or harm to piety.¹⁶

Although there is no explicit reference to curiosity here, there is an implicit condemnation of Khunrath's interest in its 'neighbours', the wonders, marvels, miracles, secrets and mysteries, not only of nature and physical creation but also of those pertaining to things hyperphysical and divine.¹⁷

Examining Khunrath's portrait further we see him flanked by the various attributes of his life. The group of books on the left reveals his interest in alchemy, magic and cabala, as well as 'history' and medicine, with the largest volume, that of the Bible, underlying them all, acting as the theosophical substrate to his work. As the seventeenth-century owner of one copy of the *Amphitheatre* observes, this 'Bibliotheca philosophica' is complemented by a 'Laboratorium philosophicum' on the right with its collection of predominantly alchemical equipment.¹⁸

Much of the condemnation levelled at Khunrath was due to his espousing many of the doctrines and approaches of the iatro-chemist Paracelsus (1493–1541), who had declared that any sincere physician should also resort to supernatural and divine means of practice to effect healing, whereby he becomes the medium and centre of magical forces, counsel that Khunrath, for one, sought to put into practice. ¹⁹ The friend of Descartes and Gassendi, Marin

¹³ C. K. Deischer and J. L. Rabinowitz, 'The Owl of Heinrich Khunrath: Its Origins and Significance' in H. M. Leicester (ed.), *Chymia, Annual Studies in the History of Chemistry*, 3 (1950), 243–50 at 244.

¹⁴ H. Fictuld, Der längst gewünschte und versprochene Chymisch-Philosophische Probier-Stein ... (Frankfurt und Leipzig, 1740), 69.

¹⁵ C. G. Von Murr, Über den wahren Ursprung der Rosenkreuzer und des Freymaurerordens (Sulzbach, 1803), 10: 'Diese theosophisch-magische und astrologische Raserey.'

¹⁶ C. Duplessis d'Argentré, *Collectio iudiciorum de novis erroribus*, 2 vols (Paris, 1728–36), ii, 162: 'perniciosum, blasphemum, impium & in fide periculosum ... Librum ipsum esse damnandum, maxime quod impietatibus, erroribus, hæresibus scatens, & continua locorum S. Scripturæ profanatione sacrilega contextus, augustioribus etiam Catholicæ Religionis mysteriis abutens, demum lectores ad secretas sceleratasque artes sollicitet. Quare pestiferum opus nec sine fidei periculo, aut Religionis detrimento, vel pietatis damno passim legi ...'

On 'neighbours' of early modern curiosity, see N. Kenny, Curiosity in Early Modern Europe: Word Histories (Wiesbaden, 1998), ch. 5.

¹⁸ See the copy in the Wellcome Institute, London: *Amphitheatre* 3560/d/3, marginalia to the *Portrait* engraving.

¹⁹ T. Paracelsus, *Hermetic Astronomy*, in A. E. Waite (ed. and trans.), *The Hermetic and Alchemical*

Mersenne (1588–1648), was so alarmed by growing interest in Paracelsian interpretations of scripture, particularly on the subject of creation, that he had written an examination of their claims in his *Quæstiones celeberrimæ in Genesim* (1623).²⁰ In a letter to Nicolas de Baugy, Mersenne condemns Khunrath as one 'most devoted to the wicked and illicit arts, insolent to nature, injurious to men, and blasphemous to God'.²¹ A letter Mersenne received from François de la Noue damns Khunrath as an impious, sacrilegious and blasphemous heretic precisely for his chemical interpretations of the mysteries.²²

Antoine Furetière's *Dictionaire universel* (1690) provides a further example of how Khunrath's theosophical interests would have come to be looked on with misgiving by many seventeenth-century readers:

One calls those Sciences Curious which are known by few people, which have particular secrets, like Chymistry ... and several vain sciences where one thinks to see the future, like Judicial Astrology, Chiromancy, Geomancy, along with which one can also include Cabala, Magic, and so forth.²³

Although Khunrath's self-designations as a 'lover of natural mysteries' and 'true lover of Divine Wisdom' carry potential extra connotations in that the term 'Liebhaber' could also denote one who was a collector of curiosities, he never uses the word 'curiosus' in any of his works. Instead, he prefers to describe himself and his fellow 'sons of the discipline' by the term 'studiosus', valued as the antithesis of the superficially inquisitive curiosity-seeker by, for example, Aquinas. Given the extreme piety of Khunrath's theosophy it seems

Writings of Paracelsus, The Great, 2 vols (Chicago, 1910), ii, 299.

- ²⁰ A. G. Debus, The French Paracelsians: The Chemical Challenge to Medical and Scientific Tradition in Early Modern France (Cambridge, 1991), 71.
- Mersenne to Nicolas de Baugy, 26 April 1630, in M. Mersenne, Correspondance du P. Marin Mersenne Religieux Minime, ed. C. De Waard, 16 vols (Paris, 1936–86), ii, 445 '... sit illum malis et illicitis artibus fuisse deditissimum, contumeliosum in naturam, injuriam in homines et in Deum blasphemum ...'.
 - ²² François de la Noue to Mersenne, 20 November 1628, in Mersenne, Correspondence, ii, 134.
- ²³ Kenny, *Curiosity in Early Modern Europe*, 64, citing A. Furetière, *Dictionaire universel* (1690): 'CURIEUX ... On appelle les sciences curieuses, celles qui sont connuës de peu de personnes, qui ont des secrets particuliers, comme la Chymie ... et plusieurs vaines sciences où l'on pense voir l'advenir, comme l'Astrologie Judiciaire, la Chiromance, la Geomance, et même on y joint la Cabale, la Magie, etc.'
- ²⁴ H. Khunrath, Quæstiones Tres, per-utiles, Haud-quaquam prætermittendæ, nec non summè necessariæ cum Curationem, tum Præcautionem absolutam, perfectam & veram Arenæ, Sabuli, Calculi, Podagræ, Gonagræ, Chiragræ aliorumque Morborum Tartareorum Microcosmi seu Mundi minoris, Hominis puta, concernentes (Leipzig, 1607), Bviii^r: 'Einem liebhaber Natürlicher Geheimnüssen.'
 - ²⁵ See, for example, *De Igne* (Magdeburg, 1608), 109, 124.
 - ²⁶ Kenny, Curiosity in Early Modern Europe, 93 and 126.
 - ²⁷ Amph.II, 19, 40, 88, 123, etc.
- ²⁸ W. Eamon, Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture (Princeton, 1994; repr. 1996), 64. See, too, Kenny, Curiosity in Early Modern Europe, 115 on the standard opposition of studiositas and curiositas. See also H. Blumenberg, The Legitimacy of the Modern Age (Cambridge, MA and London, 1985), 331.

reasonable to suggest that, like Montaigne, he could have objected to curiosity as a kind of demystified wonder, resulting in a purely secular response to phenomena.²⁹ Familiar as he is with the works of Augustine, it seems likely that he was aware of the latter's definition of curiosity as a form of temptation (*tentatio*), an appetite for experience and knowledge that demands signs and miracles from God,³⁰ a thing Khunrath gravely warns his reader against more than once, stating that 'he who takes counsel Theo-Sophically does not tempt God; [unlike] him who takes counsel rashly, flippantly [and] arrogantly.'³¹ Presumably, Khunrath considered his motto 'Nec temere, nec timide [Neither rashly, nor timidly]', representing the Aristotelian moral mean between the extremes of excess and deficiency advocated in the Nicomachean Ethics,³² as being in harmony with Augustine's assertion that 'True philosophy, which is love of and zeal of wisdom, arises from the gift of moderation, which protects one against curiosity.'³³

There is always the understanding in Khunrath's writing that true knowledge only comes to the devout theosopher patiently awaiting divine inspiration. Such being the case, in the manner of the 'noli altum sapere' tradition, he admonishes the reader to 'be not high-minded, without the inspiration, aid and guidance of God'.³⁴ Nevertheless, Khunrath roundly condemns those who repeat the Solomonic line that there is nothing new under the sun, protesting: 'As if the Spirit of Wisdom could be exhausted, so that it would be unable or unwilling to find new and previously unheard of things ... even today?'³⁵

There can be little doubt that later writers on curious phenomena, for better or worse, considered Khunrath's works to belong to the category of 'Curious Knowledge'. A negative example of this is Jacques Gaffarel's criticism of his ideas on cabala and astrology in *Curiositez Inouyes sur la Sculpture Talismanique des Persans* (1629).³⁶ Although Furetière's dictionary generally looks askance at 'Curious Sciences', it is more charitable towards Chemistry and indeed more positive examples of Khunrath's reception can be found in Jean-Jacques Manget's *Bibliotheca Chemica Curiosa* (1702), where his description of physico-

²⁹ B. M. Benedict, *Curiosity: A Cultural History of Early Modern Inquiry* (Chicago and London, 2001), 32 and 5.

³⁰ Blumenberg, Legitimacy of the Modern Age, 312.

³¹ Amph.II, 104 [mispaginated as 92]: 'Non tentat DEVM qui Theo Sophicè consulit; sed qui temerè, iocosè arroganter.'

³² Aristotle, Nicomachean Ethics, II.6.

³³ Blumenberg, Legitimacy of the Modern Age, 316.

³⁴ Amph.II, 86: 'Tu, absq[ue] DEI inspiratione, auxilio & ductu, noli altum sapere.' See Ecclesiastes 7:1. For the 'noli altum sapere' tradition, see C. Ginzburg, 'The High and the Low: The Theme of Forbidden Knowledge in the Sixteenth and Seventeenth Centuries' in Myths, Emblems, Clues, trans. J. and A. C. Tredeschi (London, 1990), 60–76.

³⁵ Amph.II, 160: 'Quasi Spiritus SAPIENTIÆ esset exhaustus, vt non æquè in te, ac in aliis veteribus etiam hodie possit aut velit inuenire noua & antea inaudita.'

³⁶ J. Gaffarel, Curiositez Inovyes, hoc est, Curiositates inauditæ de Figuris Persarum Talismanicis (1st edn, 1629; this edition, Rouen, 1632), 213 and 278.

chemical operations, discussion of the virtues of the Philosophers' Stone, and warnings against malpractice receive praise.³⁷ Johannes Fridericus Helvetius' Vitulus Aureus ... in qua tractatur de Rarissimo Naturæ Miraculo transmutandi Metalla (1667) also cites the Amphitheatre's 'wonderful method' (methodus mirabilis).³⁸

In terms of wonder (admiratio), wonders (mirabilia) and wonder-working (mirificus) power, words and operations, Khunrath is far less reticent, for these terms occur repeatedly throughout his works. His theosophy begins with the recognition that 'God is wonderful in his works',39 and the conviction that man has been formed, redeemed and sanctified so that he might admire the 'wonder-working Creator and his wonderful Creation'.40 Wonder for him, moreover, is not simply the passive awe and admiration of God's works advocated by religious thinkers like Augustine and Calvin,41 but is more akin to the Socratic and Aristotelian sense of wonder as the 'beginning of philosophy', a spur to the investigation of all aspects of God's creation.⁴² Although this wonder expresses a sense of awe at the majesty of divine creation, it does not lead, however, to a state of dumb-founded immobility, but rather to a desire to investigate phenomena, a quest for knowledge that can be used for the advantage of oneself and one's neighbour. In this, Khunrath's sense of wonder resembles Descartes' definition of it as 'the first of all the passions', where he states that 'Wonder is a sudden surprise of the soul that brings it about that the soul goes on to consider with attention the objects that seem rare and extraordinary to it.'43

Khunrath asserts that God indeed wishes us to know his mysteries and the secrets of Nature, and that they are all revealed by 'Wonderful Jehovah's wonder-working voice, wonderfully speaking, sounding [and] thundering

³⁷ Duos Ludovici de Comitibus Tractatus De Liquore Alcaest, Lapide Philosophorum, &c., in J. J. Manget, Bibliotheca Chemica Curiosa, 2 vols (Tournes, 1702), i, 773, 777; G. Clauderus, Tractatus de Tinctura Universali, in Manget, i, 131–4; Cato Chemicus, in Manget, i, 374.

J. F. Helvetius, Vitulus Aureus, quem Mundus adorat & orat, in qua tractatur de Rarissimo Naturæ Miraculo transmutandi Metalla (Amsterdam, 1667), 19–21.

³⁹ H. Khunrath, Zebelis Regis et Sapientis Arabum vetustissimi. De interpraetatione quorundam accidentium, tam externorum quam internorum, sive eventuum innopinatorum, rarorum, & insolitorum, secundum Lunae motum, per duodecim Zodiaci celestis signa, observationes accuratissimae. Ex Bibliotheca Heinrich Khunrath Lips. Medici Doct. Illustrissimi Principis ac Domini, Domini Wilhelmi à Rosis, &c. Medici Ordinarij, Pragae, iam commorantis. (Prague, 1592),)(iv^{r-v}: 'Deus mirabilis in operibus suis'.

⁴⁰ Amph.II, 220: 'Creatorem Mirificum & Creaturam eius mirabilem in humilitate admireris.'

⁴¹ L. Daston and K. Park, Wonders and the Order of Nature, 1150–1750 (New York, 2001), 125; F. Charpentier, J. Céard and G. Mathieu-Castellani, 'Préliminaires' in J. Céard et al. (eds), La Curiosité a la Renaissance (Paris, 1986), 12.

On which see A. Marr's chapter in this volume. See also P. Fisher, Wonder, the Rainbow, and the Aesthetics of Rare Experiences (Cambridge, MA and London, 1998), 10 re: Plato, Theaetetus, 155 D. See Daston and Park, Wonders, 13–14 re: Aristotle, Metaphysics 1.2, 982b10–18.

⁴³ Fisher, *Wonder*, **45**–**6**.

forth' in Sacrosanct Scripture, the Macro- and Microcosm.⁴⁴ Here we have the basis of Khunrath's Theosophy, which he defines as 'Wonderful Jehovah's Catholic, Wonder-working Theology, in the Ternary ... the Voice of God in All, through All, from All, to All', ⁴⁵ by which he means the three 'Books' of God, Nature and Man. ⁴⁶ The Spirit of Wisdom 'performs miracles ... by the virtue of signs and wonders' ⁴⁷ and one of the Theosopher's tasks is to act as interpreter of the many languages used by God to communicate with his faithful, be that offering new translations of scripture to highlight some of the limitations of the older versions, employing new exegetical methods, such as those from Cabala, to provide a greater latitude for interpretation and the discovery of new truths, or learning to read the signs and signatures in Macroand Microcosm.

The guide for this is the *Amphitheatre*, where Khunrath propounds his 'way of correctly philosophising' by a 'mystical Ladder of Seven orthodox Grades',⁴⁸ claiming that he is setting forth a 'wonderful method' given him by God, both mediately and immediately.⁴⁹ 'Mediate' knowledge is that received through angels, through the written or verbal guidance and laboratory demonstrations of an experienced master, and though the lessons of nature herself.⁵⁰ Immediate knowledge, on the other hand, is that received directly from God through divine revelation, by 'performing one's Meditations and soliloquies, TheoSophically in the house of the Oratory ... [in] the house of the PhysicoChemical Laboratory', or even 'within the sanctuary of one's bed-chamber', as a seventeenth-century manuscript from the British Library Sloane collection illustrates (Fig. 6.2).⁵¹

Through 'hypnotic Visions or dream-Revelations' the soul can undertake to 'understand and explain the secrets of the whole created Universe ..., to be united with good Spirits; to recount things past, contemplate Present Events, [and] presage those to come.'52 Khunrath's beliefs in the possibility,

⁴⁴ *Amph*.II, 162. *Amph*.II, 211: 'MIRABILIS, vocem mirificam, mirabiliter sonante[m], tonantem & loque[n]tem in SS.^A SCRIPTVRA; NATVRA; SEMETIPSO.'

⁴⁵ Amph II, 147: 'THEOSOPHIA est Theologia, in ternario (hoc est, Biblicè, Macro & Micro Cosmicè) Catholica, IEHOVÆ Mirabilis mirifica.'

⁴⁶ Amph.II, 113: 'in Libris SS[®] Scripturæ, Naturæ & semetipsis.' See too Amph.II, 18, 47, 69, 108, etc.

⁴⁷ Amph.II, 110: 'Miracula facit, Rom.15. In virtute signorum & prodigiorum, in virtute Spiritus sancti.' See Romans 15:19.

⁴⁸ Amph.I, 19: 'Prologvs hic præsens SCALÆ cuidam STVDII SAPIENTIÆ veræ, recteque PHILOSOPHANDI rationis, GRADVVM orthodoxorum SEPTEM mysticæ assimilatur.'

⁴⁹ Amph.II, 148–9 (mispaginated as p. 146 [T2^v]): 'DEDIT DEVS: A DOMINO ACCEPI: tam immediatè, quàm mediate.'

⁵⁰ Amph.II, 136, 147, 149, 153, etc.

⁵¹ Amph.II, 116: 'exercendo Meditationes suas & soliloquia, TheoSophicè in Oratorii domo ... in domum Laboratorii PhysicoChemici ... intra cubiculi sui penetralia.'

⁵² Amph.II, 168: 'totius Vniuersi creati ... iure aggreditur assequi & exponere secreta; iungi Spiritibus bonis; vetera recensere; Noua contemplari; præsagire future.'

for example, of gaining alchemical secrets through such heaven-sent dreams and visions,53 were not guaranteed to win favour with the more orthodox natural philosophical and religious community. Henry More was to attack the Paracelsians in his Enthusiasmus Triumphatus (1662) for their 'Philosophick Enthusiasms'⁵⁴ and claims to divine inspiration.⁵⁵ One of Khunrath's fellow students at Basel, the Lutheran chemist Andreas Libavius (1560-1616), condemned the contamination of natural philosophy and medicine by mysticism and occultism, claiming that the Paracelsians 'were infected by the magic they found in their master's Philosophia Sagax, which was filled with necromancy and the search for power by summoning of evil spirits'.⁵⁶ Libavius curses all Paracelsian Mages along with their Enthusiasms and diabolical raptures,57 and dramatically condemns Khunrath to the fires of Paracelsian heresy.⁵⁸ In a similar vein, Daniel Colberg's Das Platonisch-Hermetisches Christenthum (1690–91), condemns the current 'Fanatic Theology' going under the name of Enthusiasm, identifying its two principles as Cabala and Magic,⁵⁹ vilifies the Paracelsians and names Khunrath's *Amphitheatre* and De Igne Magorum as prime examples of just such fanaticism. 60 Rather than repudiate the title of enthusiast, however, Khunrath willingly embraces it,61 claiming that David, Solomon and the prophets had all been wondrously instructed by Sophia Enthusiastica and as such were θεοδιδακτοι [theodidaktoi], Theosophically inspired men 'taught by God'. 62 His promise that following his theosophical method, the reader 'will experience being inspired by Divine Power; Divinely moved; rapt, transfigured; taught by the unction of the Holy-Spirit',63 reveals a relation to wonder resembling that of the Neoplatonist

⁵³ Amph.II, 150.

⁵⁴ H. More, A Collection of Several Philosophical Writings of Dr Henry More (London, 1662), Enthusiasmus Triumphatus, 33. For curiosity and enthusiasm, see S. Clucas' chapter in this volume.

⁵⁵ Daston and Park, Wonders, 338.

⁵⁶ Debus, French Paracelsians, 61.

⁵⁷ Exercitatio alia de Abominabili impietate Magiæ Paracelsicæ per Oswaldum Crollium Aucta, in Andreas Libavius, D.O.M.A. Examen Philosophiæ novæ, quæ veteri abrogandæ opponitur (Frankfurtam-Main, 1615), 78.

⁵⁸ Libavius, Exercitatio, 62 and 66–7.

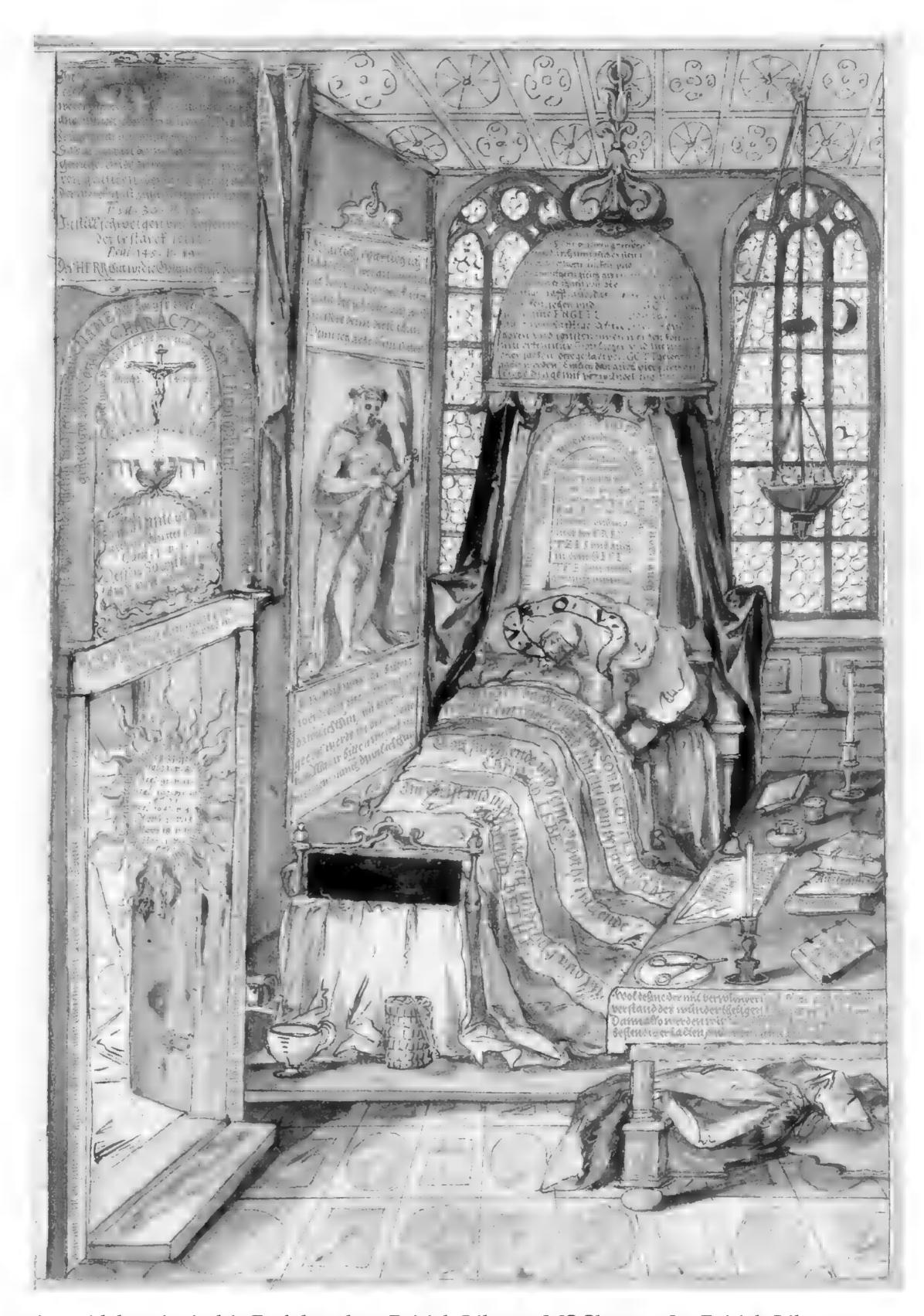
⁵⁹ D. Colberg, Das Platonisch-Hermetisches Christenthum, begreiffend Die Historische Erzehlung vom Ursprung und vielerley Secten der Heutigen Fanatischen Theologie, unterm Namen der Enthusiasts, 2 vols (Frankfurt and Leipzig, 1691), ii, 136, 149.

⁶⁰ Colberg, Platonisch-Hermetisches Christenthum, 164 and 195.

⁶¹ H. Khunrath, Vom hylealischen, das ist pri-materialischen catholischen oder allgemeinen natürlichen Chaos, der naturgemässen Alchymiae und Alchymisten, wiederholete, verneuerte und wolvermehrete naturgemäss-alchymisch- und rechtlehrende philosophische Confessio oder Bekandtniss (Frankfurt, 1708; facsimile reprint with an introduction by E. R. Gruber: Graz, 1990), Preface, and)()(5^v–6^t. Hereafter referred to as Chaos.

⁶² Chaos, 48: 'θεοδιδακτοι Divinitus edocti, von Gott gelehrte Philosophi seynd die besten und gewissesten.' See also Amph.II, 154.

⁶³ Amph.II, 16: 'Afflari enim Numine; Diuinitus affici; rapi; transfigurari; doceri te, Spiritus sancti vnctione, experieris.'



6.2 Alchemist in his Bedchamber, British Library MS Sloane 181, British Library, London.



6.3 Oratory-Laboratory engraving from Heinrich Khunrath, Amphitheatrum Sapientiæ Æternæ (1595). By courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin-Madison.

Francesco Patrizi, for whom the marvellous is found when men 'are astounded, ravished in ecstasy'.64

Khunrath's theosopher, moreover, has the potential not just to 'see the miracles of God',65 to 'experience wonders',66 but can himself become the 'wonder-working discoverer of the treasures of Eternal Wisdom', can 'have

⁶⁴ S. Greenblatt, Marvelous Possessions: The Wonder of the New World (Oxford, 1991; repr. 1992), 79.

⁶⁵ Amph.II, 116: 'visurus mirabilia DEI'.

⁶⁶ Amph.II, 156: 'experiêris mirabilia'.

the power of [performing] miracles', and will consequently indeed be obliged to 'perform and accomplish marvellous and rare things'. Although Khunrath never uses the term, it is clear that he is claiming his Theosopher can become a Thaumaturge, a worker of wonders, making the transition from being one of the *Amphitheatre*'s passive spectators to becoming one of its actors.⁶⁷

One of the features that makes the Amphitheatre so remarkable is its series of 'Amphitheatrical spectacles', 68 in the form of 'wonderful pictures that can be infinitely contemplated', through which Khunrath illustrates his message.⁶⁹ Certainly, two of these fit into the context of monstrous marvels, including as they do images of Adam-Androgyne and the Alchemical Rebis, or Hermaphrodite.70 By far the most well-known image is that of the 'Oratory-Laboratory', which represents the synthesis of his 'Wonder-working Catholic Theology', summed up in the repeated injunction 'Ora et Labora [Pray and Work]' (Fig. 6.3). The left-hand side of the image, the Oratory, is the realm of the divine, connected with Christian-Cabala and the power of the 'wonder-working word'. The right-hand side of the engraving is the realm of the macrocosm, and shows the Laboratory concerned with the Physico-Chemical investigation of the wonders of Nature, the transmutation of metals, the preparation of chemical medicines and 'the world's greatest miracle', the Philosophers' Stone.⁷¹ The remainder of this paper shall look at these two main divisions of Khunrath's knowledge in more detail.

The first component of Khunrath's 'wondrous method' was Christian-Cabala, represented here in the *Amphitheatre*'s first circular figure, otherwise referred to as the *Sigillum Dei* (Seal of God) or *Sigillum Emet* (Seal of Truth) (Fig. 6.4).⁷² Khunrath's Christian reading of Cabala, which he defines as 'Theosophically allotted symbolic Reception of Divine revelation', lies at the core of his work.⁷³ Its teachings concerning the emanations of the Godhead into the universe and the power contained in divine and angelic names pervade his theosophical outlook.⁷⁴ The German scholar Johannes Reuchlin (1455–1522), author of two

⁶⁷ Amph.II, 207: 'Is SAPIENTIÆ Æternæ thesaurorum erit inuentor mirificus.' Amph.II, 10: 'Mira & rara per Fidem operari ac impetrare debes ...: quantum fidei, tantum mirificæ virtutis.' On thaumaturgy, see A. Marr's chapter in this volume.

⁶⁸ Amph.II, 215: 'Amphitheatrales spectacula'.

⁶⁹ Libavius, *Exercitatio*, 105: 'Thrasybulus in suo amphitheatro mirabiles habet picturas, possuntque excogitari infinitæ.'

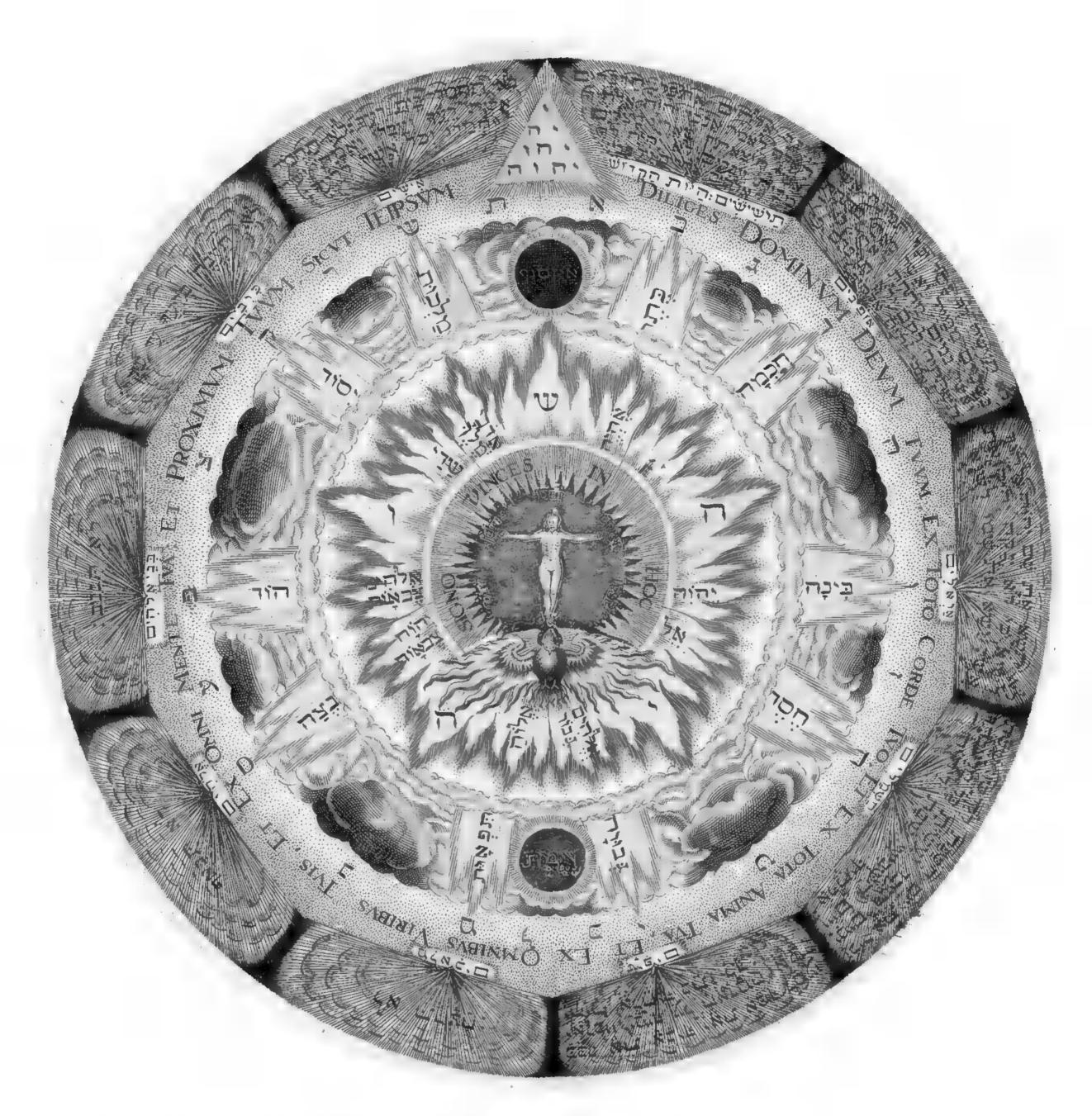
⁷º See Daston and Park, Wonders, ch. 5.

⁷¹ Chaos, 119: 'Summum Mundi Miraculum'.

⁷² Amph.II, 155: 'Est enim EMES, VERITAS, DEI sigillum, fig[ura] Amph[itheatri] huius prima.'

⁷³ Amph.II, 147 (mispaginated as p. 145 [T2^r]): 'CABALA est Diuinæ reuelationis ... TheoSophicè sortita, Symbolica RECEPTIO.'

On Cabala, see, for example, G. Scholem, *Kabbalah* (Jerusalem, 1974; repr. New York, 1978); *Origins of the Kaballah*, ed. R. J. Werblowsky, trans. A. Arkush (Princeton, 1990).



Christ-Cruciform or Sigillum Dei engraving from Heinrich Khunrath, Amphitheatrum Sapientiæ Æternæ (1595). By courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin-Madison.

of the most important books of Christian-Cabala, De Verbo Mirifico [On the Wonder-Working Word] (1494) and De Arte Cabalistica (1517),75 is without a doubt Khunrath's major cited source for Cabala, and nowhere does the influence of these works, particularly the former, more explicitly reveal itself

⁷⁵ J. Reuchlin, De Verbo Mirifico (1494); facsimile reprint (Stuttgart, 1964); J. Reuchlin, De Arte Cabalistica: On the Art of the Kabbalah, trans. M. and S. Goodman (New York, 1983; repr. Lincoln and London, 1993).

than in the *Amphitheatre's Sigillum Emet*.⁷⁶ Khunrath would have been well aware of Reuchlin's belief that through contact with angels the cabalist magus could learn of the Divine Names of God and thereby perform wonders.⁷⁷ In this sigil, along with the Hebrew text of the Ten Commandments and a Latin translation of the beginning of the Shema prayer,78 we find the twenty-two letters of the Hebrew alphabet, from which both the world and the Torah were generated according to the Sefer Yetzirah (Book of Creation), through the permutation of which the cabalist could understand and influence created things;⁷⁹ and the ten Emanations of the *Sefirot*,⁸⁰ together with the dark sphere of אין סוף [Ein Sof] denoting the most abstruse and unknowable aspect of the Godhead, that which is 'without limit' or 'infinite', and the light sphere of אמת [Emet] or 'Truth'. Any Cabalist would, of course, have been aware of the significance of Emet as the seal on the forehead of the Golem, the artificial man created by special permutations of the divine name יהוה [YHVH].81 We also find the ten orders of angelic beings,82 and ten Divine Names of God,83 aspects of his power to be actively invoked by the Theosopher for inspiration, for example, or protection, in his efforts to increase his knowledge of the universe,84 together with five large tongues of flame bearing the letters of Reuchlin's Christian-Cabalist name of Christ, the wonder-working word יהשוה [YHSVH], 'the Name above all names ... the efficient cause of all divine miracles'.85 This is the Pentagrammaton, described rapturously by Khunrath as

⁷⁶ For references to Reuchlin and *De verbo*, see, for example, *Amph*.II, 104 (mispaginated as 92)–5, 123–4.

⁷⁷ Reuchlin, *De Arte*, 123: 'Thus arises the Kabbalist's intimate friendship with the angels, through which he comes to know, in the proper manner, something of the divine names, and does wonderful things (commonly known as miracles).'

⁷⁸ Deuteronomy 6:5 and Matthew 22:37–9.

⁷⁹ Reuchlin, De Arte, 329. See too A. Kaplan (trans.), Sefer Yetzirah: The Book of Creation (York Beach, 1990; repr. 1993), 26, 108: 'Twenty-two Foundation Letters: He placed them in a circle like a wall with 231 gates.'

⁸⁰ Kether כתר (Crown), Chochmah הכמה (Wisdom), Binah בינה (Understanding/Intelligence), Chesed חסד (Loving Kindness/Goodness), Geburah גבורה (Seriousness/Gravity), Tiphareth תפארת (Praise), Vesod מלכות (Victory), Hod) מלכות (Kingdom).

⁸¹ F. Secret, Les Kabbalistes Chrétiens de la Renaissance (Paris, 1964), 75.

⁸² Tarshishim אראלים or Hayoth ha-Qadosh היות הקדוש, היות הקדוש, Aralim אראלים, Chashmalim, Seraphim הושמלים, Elohim מלאכים, Elohim בני אלהים, Beni Elohim בני אלהים, Cherubim בני אלהים, Elohim אישים, Aralim בני אלהים, Elohim אישים, Aralim בני אלהים, Elohim אישים, Elohim אישים, Cherubim בני אלהים, and Aishim אישים, Cherubim אישים, and Aishim אישים. This list is most likely taken from Agrippa. See H. C. Agrippa, Three Books of Occult Philosophy, ed. D. Tyson, trans. J. Freake (St Paul, 1993; repr. 1997), 288–9. Khunrath could equally well have lifted it from Paulus Ricius, De Coelesti Agricultura, in Johann Pistorius, Artis Cabalisticæ; hoc est, Reconditæ Theologiæ et Philosophiæ Scriptorum, Tomus I (Basileæ per Sebastianum Henric Petri, 1587), 121.

⁸³ Ehieh אהיה, Jah יהוה, Jehovah אל Elohim Gibor אלהים גבור, Elohim Zebaoth אלהים צבאות, Elohim Zebaoth אלהים צבאות, and Adonai Melech אדני מלך.

⁸⁴ Amph.II, 81.

⁸⁵ Amph.II, 75: 'Nomen verò IHESVS est nomen supra omne nomen ... Hoc NOMEN omnium diuinorum miraculorum caussa effectrix est.'

the Seal, vanquishing and putting adversaries to flight! the wonder-working Pentacle, both of the five letters and wounds of the wonder-working Word! the powerful Almadel!⁸⁶

At the heart of the figure stands the visible form of Christ himself resurrected, the $\theta \epsilon \alpha \nu \theta \varrho \omega \pi \sigma \varsigma$ [theanthropos – divine man],⁸⁷ encircled by the phrase 'Truly he was the son of God [Vere filius dei erat ipse]' and the famous words of Constantine's vision 'In this sign you conquer [in hoc signo vinces]'.⁸⁹

These sacred words and names are described as 'vigorously promoting the Mind's wonderful activity' within the theosopher. By their means 'we shall experience without deception the good Angels amicably helping us, faithfully advising us, familiarly teaching us by the benevolent command of YHVH, and guiding us safely on our ways.'90 In a similar way to how Ficino, in De Vita, had claimed that Pythagoreans 'used to perform wonders by words, songs, and sounds in the Phoebean and Orphic manner',91 Khunrath advises anyone 'eager to perform marvels' to 'survey with the eyes and the mind, the Names of God noted down by me in the first figure of this Amphitheatre ... and select from this assembly, from such a host, from this well-nigh legion of Holy Names, that which is most preferable to be piously used for the kinds of operations to which you give your attention.'92 To support his claims he provides scriptural examples of individuals who accomplished marvels by way of invocation, hymn and prayer: Moses' subjugation of Amalek, Jehoshaphat's routing of the forces of Ammon and Moab, and David's allaying the ferocity of Saul and other enemies.93 Khunrath mentions a particularly well-known divinely-magical word, פלא [Pele], signifying 'a worker of miracles, or causing wonders', which also appears in Agrippa and Reuchlin,94 and is the word that appears, too, on a ring described to John Dee by the archangel Michael, 'wherewith all Miracles, and diuine works and wonders were wrowght by Salomon'.95

⁸⁶ Amph.II, 209: 'SIGNACVLVM, vincens ac fugans partes aduersas! PENTACVLVM & quinque literarum ac vulnerum, VERBI mirifici mirificum! ALMADEL virtuosum!'

⁸⁷ Amph.II, 44, 57, 197.

⁸⁸ Matthew 27:54 spoken concerning the crucifixion.

⁸⁹ See Agrippa, Three Books of Occult Philosophy, 564.

⁹º Amph.II, 187–8: 'operationem admirandam, in nosmetipsos & extra nos, virtuosè promouentia ... ANGELOS bonos, nobis amicè assistentes, nos fideliter monentes. iussu benigno familiariter docentes, atque in viis nostris tutò ducentes, sinè fallacia experiemur.'

⁹¹ M. Ficino, *Three Books on Life: A Critical Edition and Translation with Introduction and Notes*, ed. and trans. C. V. Kaske and J. R. Clark (Tempe, AZ, 1998), 355.

⁹² Amph.II, 124: 'qui mirabilium conficiendorum auidi estis, oculis & animo perlustrate NOMINA DEI, fig Amphitheatri huius prima à me annotata ... eligiteque ex hoc conuentu, de tali exercitu, ex hac fermè Nominum Sacrorum legione, quo sit potissimum in eiuscemodi operationibus, quibus operam datis, piè vtendum.'

⁹³ Amph.II, 28. See Exodus 17:11, 2 Paralipomenon 20:22.

⁹⁴ Chaos, 63. See Judges 13:18 'And he answered him: Why askest thou my name, which is wonderful?' Agrippa, Three Books of Occult Philosophy, 477. Reuchlin, De Verbo, 89 and Secret, 46, 69.

⁹⁵ British Library, London, Sloane MS 3188, Liber primus, 12^r.

At least some of Khunrath's contemporaries, certainly his Bohemian patron Vilém Rožmberk, would also have known of Dee's famous *Sigillum Æmeth*, on which was placed the shew-stone in which his scryer Edward Kelley had visions of angelic visitations and sought revelations of secret knowledge and prophecy. Facility has received both the 'gift of discerning spirits' and the 'discernment of Good and Evil' from God, Certainly suggests that he too was involved in such practices and he must surely have provoked alarm with the claim that 'it is not knowledge of evil, but [its] use [that] damns', In which he seems to be arguing for an extremely wide latitude to the interpretation of Paul's advice to the Thessalonians to 'prove all things; hold fast that which is good.'99

In the *Amphitheatre*'s second circular figure we find that the focus has shifted from the central figure of Christ, the divine-man whose name is the efficient cause of divine miracles, to the image of the Theosopher as the androgynous Adam-Protoplast (First-Formed Man), the potential Thaumaturge (Fig. 6.5). Khunrath's message is that the stronger the Theosopher is in faith, the more he will experience of the Divine, and the greater will be his own wonder-working power:

For just as Faith is the door of miracles, and the hand for obtaining wonderful Goods and Gifts from the Lord; so mistrust or unbelief is the loss or expulsion of miracles, and the impediment to obtaining great and admirable things from Iehovah, and to accomplishing them by ourselves (for the Theo-Sopher is to God what his hand is to man).¹⁰⁰

Khunrath's ultimate message is that the theosopher cabalistically united with God becomes 'a human God or a Divine man, that is, he is, as it were, Deified, and therefore capable of [whatever] he wishes.'101 'In God', the theosopher 'is capable of all things ... nothing is impossible to the Believer!'102 Much of the Amphitheatrical performance of such wondrous things is found in the practice of magic, which Khunrath divides into two basic forms: Hyperphysical and Physical.

Hyperphysical or Supernatural Magic is 'pious and useful conversation, as much when awake as when sleeping, mediately and immediately, with the

 $^{^{96}}$ The original drawing is in the British Library, Sloane MS 3188, 30 . On the activities of Dee and Kelley, see S. Clucas's chapter in this volume.

⁹⁷ Amph.II, 149.

⁹⁸ Amph.II, 148 (mispaginated as p. 146 [T2^v]): 'non enim scientia mali, sed vsus damnat.' See too *Chaos*, 285.

⁹⁹ *Amph*.II, 149: 1 Thessalonians 5:21.

¹⁰⁰ *Amph*.II, 104: 'ianua miraculorum ... est Fides.' See too *De Igne*, 41–2. Cf. Reuchlin, *De verbo*, 34: 'Sola enim recta fides: est ianua miraculoru[m].'

Amph.II, 203: 'homo, vnitus DEO, ratione DEI fit quasi Deus humanus, aut homo Diuinus, h.e. quasi DEIFICATVR; & propterea potest, quæ vult; vult, autem, quæ DEVS IPSE.' See too Amph. II, 154, where Khunrath identifies this as coming from Reuchlin's *De Verbo Mirifico* (Lib.I, 27).

¹⁰² Amph.II, 212: 'In DEO potest omnia ... CREDENTI nil impossibile!'



6.5 Adam-Androgyne engraving from Heinrich Khunrath, *Amphitheatrum Sapientiæ Æternæ* (1595). By courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin-Madison.

good angels, God's fiery ministers'. This type of magical practice in particular risked rousing the ire of the Church. Augustine, who cited fascination with magical effects as a major instance of the 'disease' of curiosity, had

Amph.II, 147 (mispaginated as p. 145 [T2^r]): 'PHYSICOMAGEIA (opus tantum de Beresith, hoc est, Sapientia Naturæ, vers. 162.) est Naturali artificio (Macro & MicroCosmicè) mirifica practicandi ratio. HYPERPHYSICOMAGEIA (respectu Naturalis & Doctrinæ causa, sic dicta) est cum Angelis bonis, flammeis DEI ministris ... tam vigila[n]do quàm dormiendo, mediatè & immediatè, pia & vtilis conuersatio.'

¹⁰⁴ Daston and Park, Wonders, 123.

particularly denounced Neoplatonic theurgy as a form of idolatry, since it involved cooperating with demons.¹⁰⁵ Even 'the highly-learned wonder-man Heinrich Cornelius Agrippa',¹⁰⁶ one of Khunrath's main sources on magic, had condemned one of its forms, Goetia, as being 'grounded upon the entercours of wicked sprites made with the rites of detestable curiositie'.¹⁰⁷ Khunrath's list of angelic orders leads us into this far less orthodox territory, for it is through both 'mediate' and 'immediate' contact with angelic powers, through 'good conversations with wonderful God and his Good spirits, ... God's Good Angels',¹⁰⁸ that a man can learn of God's Divine Names and come to perform miracles.¹⁰⁹ Here we are entering the domain of theurgy or divine magic, for many the realm of Faustian curiosity.

Despite Khunrath's assurances that his practice has nothing to do with that of the 'Devil's magicians or sorcerors', 110 and his advice that Wisdom is to be sought neither 'in the conjurations of Necromancers, nor through a diabolical familiar spirit' he was, nevertheless, accused of impiety in his own magical work.¹¹¹ One of the most damning condemnations can be found in Andreas Libavius' Examen Philosophiæ novæ (1615), in a text entitled Exercitatio alia de Abominabili impietate Magiæ Paracelsicæ, in which Khunrath is castigated along with Paracelsus, Croll, Agrippa and Trithemius for his belief in the possibility of a 'unio magica' with God, for the purpose of performing miracles, on the basis of Hermes Trismegistus' well-known desire 'to learn the nature of things, and to know God' from Pimander, the Spirit of Divine Power,112 a passage that actually appears in one of the *Amphitheatre's* engravings, as Khunrath's critic is well aware. 113 Just as Agrippa had been accused by Jean Bodin of possessing a 'familiar spirit' in the form of his black dog, 114 so too is Khunrath accused here of the very same, due to the repeated appearance of his own dog in the Amphitheatre engravings (despite the fact that it stands for him as a symbol of faith and fidelity).115

¹⁰⁵ Eamon, Science and the Secrets of Nature, 59.

De Igne, 32: 'der hoch gelehrte wunderman H. C. Agrippa.'

¹⁰⁷ H. C. Agrippa, Of the Vanitie and Vncertaintie of Artes and Sciences: Englished by Ia. San. Gent. (London, 1575), 57^v.

¹⁰⁸ Chaos, 26: 'Gute Gespräche mit dem wunderbahren Gott und desselben Guten Geistern/vom Gott dem wunderbahren und Guten Gottes Engeln.'

¹⁰⁹ Reuchlin, De Arte, 123.

De Igne (1608), 37: 'Man redet allhie je nicht von Teuffels Magis oder Zauberern.'

¹¹¹ Amph.II, 122: 'nec Nigromanticorum coniuratoriis; non à diabolico spiritu familiari.'

Amph.II, 169, citing the Pimander: 'cupio rerum Naturam discere, DEVMQVE cognoscere.' See B..P. Copenhaver, Hermetica: The Greek 'Corpus Hermeticum' and the Latin 'Asclepius' in a new English Translation, with notes and introduction (Cambridge, 1992), 1.

¹¹³ Libavius, Exercitatio, 66–7.

¹¹⁴ See L. Thorndike's chapter on Agrippa in *A History of Magic and Experimental Science*, 8 vols (New York, 1923–58), v, 137.

¹¹⁵ Amph.II, 38; Libavius, Exercitatio, 72.

Physical or Natural Magic is 'the wonder-working way of (Macro and Micro-Cosmically) practising with Natural skill'. Khunrath expands upon this basic definition when speaking of 'Magic and her sisters, Physiognomy, Metoposcopy, Chiromancy and every Doctrine of the Signature of Natural Things; Alchemy; Astrology too, with her daughter Geomancy'. 116

One of the main uses of Natural Magic was in the realm of medicine. In Wonders and the Order of Nature, Lorraine Daston and Katharine Park write of how learned physicians prized the 'marvelous therapeutics' the natural philosopher discovered in nature, the remarkable properties of healing springs, animals and plants. As a medical doctor, Khunrath had a profound interest in the healing properties of plants, such as those in Conrad Gesner's De Raris et Admirandis Herbis (1555) and De Remediis Secretis (1559). 118

'Nature, certainly, always brings something new by means of the Vulcanic Art.'¹¹⁹ The most significant application of natural magic for Khunrath was the practice of 'Alchemy, the Most Ancient, Certain, Most Wise, Holy ... Wonderful and Wonder-working Art of Arts', which 'either finds a man Holy, or makes [him] Holy!'¹²⁰ Here Khunrath promotes a particularly strong sense of wonder, including biblical utterances such as the psalmodic exultation, 'This has been done by Jehovah! And it is wonderful to our eyes', appearing in his engraving of the Alchemical Citadel.¹²¹

Nature herself is God's wonder-working minister in the world,¹²² and the heavenly firmament is 'the wonderful, perpetual, Universal Macrocosmic Laboratory of Wonderful God',¹²³ whose fire and light is God's 'miraculous Fiery Instrument naturally giving rise to many wonders in the Macrocosm'.¹²⁴ This is more, however, than a passive admiration. In the Pyramid engraving we find the text of Hermes Trismegistus' *Emerald Tablet*:

¹¹⁶ Amph.II, 91: 'MAGEIA, & huic cognatæ, PHYSIOGNOMIA, METOPOSCOPIA, CHEIROMANTIA, atque Doctrina de SIGNATVRA Rerum Naturaliu[m] omnis: ALCHEMIA; ASTROLOGIA quoque cum filia sua GEOMANTIA.'

¹¹⁷ Daston and Park, Wonders, 137, etc.

¹¹⁸ Amph.II, 129.

¹¹⁹ Khunrath, *Quæstiones*, Civ^v: 'Natura, certè, per Artem Vulcanicam, semper aliquid novi apportat.'

Amphitheatre, Pyramid engraving: '... ALCHYMIAE, Arti Artiu[m] cu[m] Antiquiss[im]æ, Certæ, Sagaciss[im]æ Sanctæ (adeo etiam, vt, cu[m] aliis & Thoma de Aqui^{no} attesta[n]te, homine[m] aut reperiat Sa[n]ctu[m], aut reddat Sanctu[m]!) Mirabilis & Mirificæ'

See the *Amphitheatre's Citadel* engraving: 'A Iehoua factvm est istvd! Et est mirabile in oculis nostris'. See too *Amph.II*, 107. Cf. Vulgate Psalm 117:23 and Mark 12:11.

¹²² Amph.I, 4: 'NATVRÆ mirificæ, ministræ ELOHIM in MVNDO Vniuerso (eiusque FILIO, MAGNESIA Philosophorum Indigitato,) nunquam odiosæ, NUMINI ac LVMINI suspiciendo.'

¹²³ Amph.II, 131: 'Mirabile DEI Mirabilis Laboratorium Macro Cosmicon, Naturâ præsidente aut Laborante, perpetuum, Catholicon.'

¹²⁴ De Igne, 54: 'Him[m]lisch Fewer/ und Liecht/ ist JEHOVÆ Instrumentum IGNEUM miraculosum in Mundo Majore multa mirabilia naturaliter operans, Catholicon:'

Truly, without lies, certainly and most truly, that which is Below is like that which is Above; And that which is Above is like that which is Below; whereby one can achieve and perform the miracles or wondrous signs of one thing ... Thus was the world created. Hence occur rare combinations, and many Wonders are worked; [and] this is the way to work them.¹²⁵

Khunrath's alchemical ambition is no less than to emulate God's powers of creation. He promises that through contemplation of the *Amphitheatre*'s third circular figure, of the alchemical Rebis, 'you will know how to act Physico-Chemically in the Laboratory; the Creator Elohim's whole wonderful art of constituting (I do not say creating) the World, will appear to you' (Fig. 6.6).¹²⁶

Physical Chemistry is 'the art of chemically dissolving, purifying and rightly reuniting Physical Things by the method of Nature; the Universal (Macro-Cosmically, the Philosophers' Stone; Micro-Cosmically, the parts of the human body) ... and all the particulars of the inferior globe'¹²⁷ for obtaining 'the most wholesomely efficacious subtleties and precious Essences of Vegetables, Animals and their parts, Minerals, Stones, Gems, Pearls and Metals.'¹²⁸ Khunrath is especially interested in the properties of salts, with him declaring, for example, that 'many wonders lie hidden in this fixed green stone of the salt of tartar.'¹²⁹ He also reveals a fascination with the 'truly wonderful and miraculous water [aqua permanens]' found burning perpetually in antique lamps discovered in ancient monuments.¹³⁰

The ultimate goal of alchemy is the 'Divine, Holy, Wonderful and Miraculous' Philosophers' Stone, 131 which he describes as

the Matter, the magnificent object and subject of all wonderfulness in the Heavens and on Earth, and also the greatest and miraculous Theatre of secrets and miracles of the whole Universe.¹³²

¹²⁵ Amphitheatre, Pyramid engraving: 'Warhafftig, sonder Luegen gewiss und auff das aller warhafftigste, diss so UNTEN ist, ist gleich dem OBERN; Vnd dis so OBEN ist, ist gleich dem VNTERN: damit man kan erlangen und uerrichten Miracula oder wunder-zeichen EINES EINIGEN DINGES ... ALSO IST DIE WELT GESCHAFFEN! Dahero geschehen seltzame Uereinigu[n]gen, und werden MANCHERLEY WUNDER gewürcket; Welcher Weg, die selben züwürcken, dieser ist.'

¹²⁶ Amph.II, 151: 'Physico Chemicè scires tractare in Laboratorio ... tibi appareret Mundi ELOHIM CREATORIS artificium constituendi (non dico, creandi) mirabile totum.'

¹²⁷ Amph.II, 147 (mispaginated as p. 145 [T2^r]): 'PHYSICOCHEMIA est ars, methodo Naturæ Chemicè soluendi, depurandi & ritè reuniendi Res Physicas; Vniuersale[m] (MacroCosmicè, Lapide[m] Phil[osophoru]m. MicroCosmicè corporis humani partes ...) & particulares, globi inferioris, OMNES.'

¹²⁸ Amph.II, 163: 'Vegetabilium, Animalium partiumque eorundum, Mineralium, Lapidum, Gemmarum, Margaritarum, & Metallorum Essentias prætiosas, sub[t]ilitatesq[ue] salutariter efficacissimas.'

¹²⁹ Khunrath, Magnesia, 68: 'In diesem fixen grünen Stein Salis Tartari stecket viel wunders.'

¹³⁰ Amph.II, 129: 'aquam verè mirabilem & mirificam.'

¹³¹ Chaos, 62: 'Lapis Divinus, Sanctus; Mirabilis & Mirificus.'

¹³² Amph.II, 206: 'LAPIS PHIL[OSOPHORV]M Materia, obiectum & subiectum est mirabilitatis omnis, quæ in Cælis & in Terris est, magnificu[m], Nec non THEATRVM miraculorum ac secretorum,



6.6 Alchemical Rebis engraving from Heinrich Khunrath, *Amphitheatrum Sapientiæ Æternæ* (1595). By courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin-Madison.

Although it looks as if the terms 'wonder' and 'miracle' are interchangeable here, I would suggest that there is, perhaps, a slight distinction. The Philosophers' Stone is miraculous because the knowledge of its preparation is in reality a gift of God and cannot be achieved without divine inspiration. ¹³³ It would not appear, however, to be a miracle that constitutes a suspension

totius Vniuersi, amplissimum atque miraculosum.' Cf. *Chaos*, 4: 'H. C. Agrippa: Subjectum omnis mirabilitatis & in Cælis & in Terra, Lib.1 de Occulta Philosophia. in scala unitatis.'

¹³³ Amph.II, 89.

of the order of nature, such as when Joshua stopped the course of the Sun or when Isaiah caused it to go retrograde. Though rare and extraordinary, the Stone is the 'Miracle of Nature produced by art'. Its secret is miraculously entrusted to the devout seeker, but its production takes place according to natural or supernatural laws. By means of it, the alchemist can then himself perform many wonders.

The 'Universal Physico-Chemical Philosophers' Stone', we learn, 'resists diabolical powers; and wondrously accomplishes innumerable other no less excellent things.'137 It has, in fact, a 'Triune Divine Use'. On a 'Macrocosmic' level it transmutes inferior Metals into superior ones, it makes real gems from flints, rubies and carbuncles from crystal, makes all metals, gems and stones potable, cures sick animals, revives plants, and makes a perpetuallyburning water. 'Microcosmically' it 'miraculously kindles the Light of Nature in the mind of man', drives away evil Spirits from those who are possessed, stimulates innate genius and exalts the memory; cures melancholy and promotes a perpetual cheerfulness, vigorously routs all internal and external maladies of body, spirit or soul and confers a long life. Finally, we learn that the 'Divine' Stone has 'Physico-magical, Hyperphysico-magical, Theosophical and Cabalistic' uses. 138 It is indeed a 'wonderful ferment' that 'makes the mortal immortal' ממים and is in fact the mysterious אורים [Urim] and תמים [Thummim] of the Old Testament, by which God Cabalistically answers the Theosopher's questions, telling him in person of great and hidden things. 140 In this it resembles Elias Ashmole's description of the 'Magicall' and 'Angelicall' Stones in the Prolegomena to the *Theatrum Chemicum Britannicum* (1652), where he states that Hermes, Moses and Solomon all had this Angelicall Stone, with which they wrought wonders and that Racis (Rhazes) and Petrus Bonus had also spoken of its 'Gift of Prophesie'.141

The preparation of such a Stone was for Khunrath proof of the existence of supernatural and divine phenomena, of the possibility of miracles, a way of exciting religious devotion. For him the practice of alchemy and natural philosophy had moral and devotional value for the advancement of the

¹³⁴ Amph.II, 134. Joshua 10:13 and 2 Kings 20:11.

¹³⁵ Amph.II, 191: 'Naturæ, per artem, miraculo' and Circular Figure 3 of the Alchemical Rebis: 'NATVRÆ (ARTE MINISTRANTE) MIRACVLVM.' Magnesia, 25: 'LAPIS Philosophorum ENS Physico-artificiale MIRIFICUM.'

¹³⁶ Fisher, Wonder, 47.

¹³⁷ Amph.II, 58: 'LAPIS Phil[osophorum] Catholicus PhysicoChemicus diabolicis resistat potestatibus; aliaq[ue] non minus præstantia mirificè operetur innumera.'

¹³⁸ Amph.II, 206: 'VSVM, catholice Triunum, DIVINVM ... Physicomagicum quoque; Hyperphysicomagicum, Theosophicum & Cabalisticum.'

¹³⁹ Amph.II, 19: 'Hæc fermentatio mirabilis, mortalem reddit immortalem.'

¹⁴⁰ Amph.II, 204: 'NATVRÆ LVMEN ... in hominis mente, mirificè accendit.' On the Urim and Thummim, see Exodus 28:30 and Leviticus 8:8.

¹⁴¹ Elias Ashmole, Theatrum Chemicum Britannicum (London, 1652), Prolegomena, Bv–B2^r.

Christian faith, the illustration of truth and refutation of pagan and atheistical error. Most controversial, he promotes the reciprocal relationship between religion and natural philosophy most emphatically in his development of the notion of the 'two great Wonder Books', of Scripture and Nature, where he asserts the 'analogical harmony' of their two 'sons', or two 'Wonder-Stones', Christ the 'son of the microcosm' and the Philosophers' Stone, 'son of the macrocosm', both of which work together for the perfection of man and nature.¹⁴²

In conclusion, Khunrath's engagement with wonder had little in common with popular curiosity about monstrous creatures or freaks of nature; nor is there any emotional tone of bewilderment or fear, save for a reverent 'fear of the Lord'. His fascination with wonder was as part of an élite tradition, as a learned specialist in extraordinary phenomena, and resembles Daston and Park's description of those who 'rehabilitated wonders for both natural philosophical contemplation and empirical investigation'. ¹⁴³ In his theosophical enthusiasm, however, his attitude differs from Descartes, for while the latter argues that such investigation eventually results in a demystification of phenomena, with Khunrath there is the sense that the capacity to feel wonder is never exhausted and is in fact an essential state of mind for one striving to become a 'human god or divine man'. ¹⁴⁴ As such, like the 'surpassingly-perfect stone', ¹⁴⁵ the theosopher himself becomes a wonder, someone surpassing the normal measure, and represents the potential of wonders to act as 'markers of the outermost limits', of what was known and what one might become. ¹⁴⁶

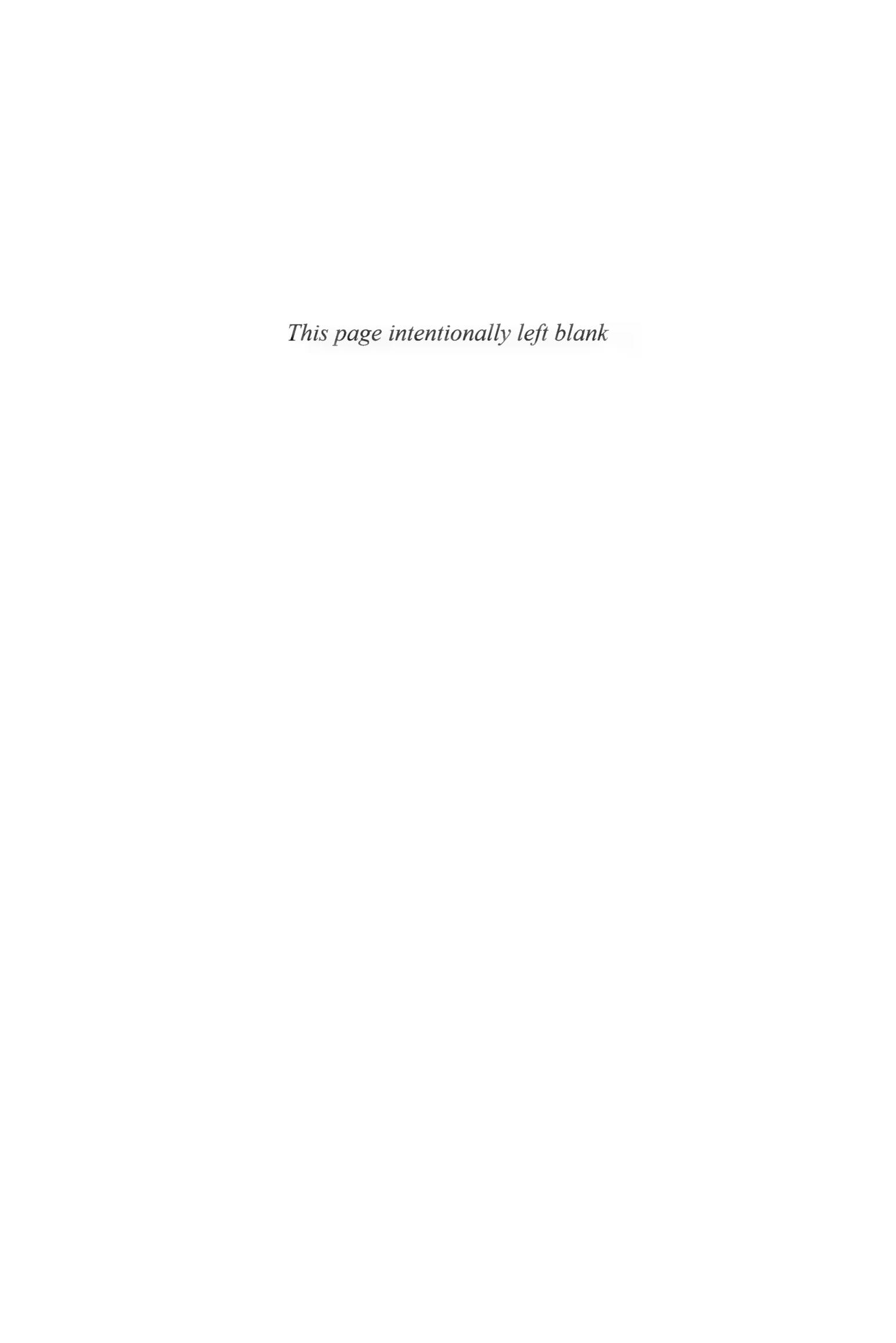
¹⁴² Magnesia, 57: 'zwey grosse Wunder Bücher'; Chaos, 172: 'O wie eine gantz gewisse Ubereinkunfft und unfehlbare Vergleichung ist dieser beyder Wundersteine!'

¹⁴³ Daston and Park, Wonders, 18–19.

¹⁴⁴ Fisher, Wonders, 58.

¹⁴⁵ Amph.II, 163: 'Lapidis plusquamperfecti'.

¹⁴⁶ Daston and Park, Wonders, 20.



Enthusiasm and 'damnable curiosity': Meric Casaubon and John Dee

Stephen Clucas

In a postscript added to his preface to A True & Faithful Relation of What Passed for Many Yeers Between Dr John Dee ... and Some Spirits, Meric Casaubon reacts to the appearance of Elias Ashmole's Theatrum Chemicum Britannicum, which had been published, Casaubon says, 'Since this Preface was written, and almost printed' in 1659 (in actual fact it had been printed seven years earlier in 1652).¹ Although he says that he will 'meddle not' with Ashmole's 'Judgement concerning Dr Dee, or [Edward] Kelley', and that his postscript was not written 'of purpose to oppose the Author', it is clear that he deeply disapproved of Ashmole's veneration of Dee and Kelley as alchemical authorities, and he is more unsparing of Dee's angelic conversations here than he is in the preface itself, reminding his readers of Kelley's reputation as a necromancer, and reprinting the relevant passages from John Weever's 1631 Funerall Monuments to underline his point.² The strong likelihood (in Casaubon's view) of the veracity of these rumours casts a dim light on Dee's involvement with Kelley:

Which indeed doth make Doctor Dee's case altogether inexcusable, that believing and knowing the man [i.e. Kelley] to be such a one, he would have to do with him, and expected good by his Ministeries; but that the Doctor his Faith, and his intellectualls ... were so much in the power and government of his Spirits, that they might perswade him to any thing, under colour of doing service unto God, yea had it been to cut his Fathers throat, [or] as we see in the Relation, that they perswaded him to lie with another man's Wife, and prostitute his own to a vile, and by himself belived, Diabolical man.³

¹ E. Ashmole, Theatrum Chemicum Britannicum; containing severall poeticall pieces of our famous English philosophers, who have written the Hermetique Mysteries in their owne ancient language. Faithfully collected ... with annotations thereon, by E. Ashmole, etc. (London, 1652).

² See J. Weever, Ancient Funerall Monuments within the United Monarchie of Great Britaine and Ireland, and the Ilands Adjacent, with the Dissolved Monasteries therein Contained ... Whereunto is prefixed a discourse of funerall monuments, etc. (London, 1631), 45–6.

³ A True & Faithful Relation of What Passed for many Yeers Between Dr John Dee (A Mathematician of Great Fame in Q. Eliz. and King James their Reignes) and Some Spirits: Tending (had it Succeeded) To

In the body of the preface itself, however, Casaubon shows Dee to be less 'inexcusable' than he makes him appear here, in the light of Ashmole's recent flattering evocation of Dee and his 'scryer' (or 'seer') Edward Kelley.

Given Casaubon's unequivocal condemnation of Dee's supposed communications with angels in the 'Postscript', it might be wondered why he should have gone to the trouble of printing the voluminous and complicated manuscript in the first place. Some light is shed by his subtitle, where the preface is described as 'a Preface Confirming the Reality (as to the Point of Spirits) of this Relation: and shewing the severall good Uses that a Sober Christian may make of All'.

In a brief but illuminating excursus on Casaubon's intellectual career in *Science and the Shape of Orthodoxy* (1995), Michael Hunter notes that Casaubon had been 'a leading protagonist in the controversy over "enthusiasm" stimulated by the emergence of radical Protestantism in the aftermath of the English Civil War', and also notes Casaubon's involvement in 'the bizarre enterprise [of] the publication of John Dee's Spiritual Diaries', although he does not make a connection between these two facts. Casaubon's involvement in publishing Dee's manuscript diary, has, as Hunter rightly observes, been largely misunderstood by scholars of the occult sciences. Casaubon's publication, Hunter says,

has been seen – perhaps overdramatically – as part of a campaign to undermine the reputation both of Dee and of occultism more generally; but Casaubon's exact role and motives in this episode are not wholly clear, and its place in the development of his ideas on occult phenomena would repay detailed scrutiny.⁴

In this essay I will be considering the motives of Casaubon in publishing Dee's manuscript, and its connections with some of Casaubon's other controversial writings. In brief I shall be arguing that Casaubon's publication was intended as an attack on three contemporary trends:

1. Enthusiastic and inspired religion or 'Anabaptism', which he saw as the product of misunderstandings concerning the natural (or supernatural) causes of 'private revelations', or of a 'damnable curiosity' and 'presumption' on the part of its adherents.

a General Alteration of most States and Kingdoms in the World. His Private Conferences with Rodolphe Emperor of Germany, Stephen K. of Poland, and divers other Princes about it. The Particulars of his Cause, as it was agitated in the Emperor's Court; By the Popes Intervention: His Banishment, and Restoration in part. As also The Letters of Sundry Great men and princes (some whereof were present at some of these Conferences and Apparitions of Spirits): to the said D. Dee. Out of The Orginal Copy, written with Dr Dees own hand: Kept in the Library of Sir Tho. Cotton, Kt. Baronet. With a Preface Confirming the Reality (as to the Point of Spirits) of this Relation: and shewing the severall good Uses that a Sober Christian may make of All. By Meric Casaubon, DD. (London, 1659), 'Postscript', unsigned leaf inserted after I'.

⁴ M. Hunter, *Science and the Shape of Orthodoxy* (Woodbridge, 1995), 'Ancients, Moderns, Philologists and Scientists', 215–22 at 215.

- 2. 'Sadduceeism' and Atheism focusing particularly on scepticism concerning the real existence of spirits.
- 3. Interest in, and curiosity about occult philosophy or 'magic', particularly amongst a learned readership.

This three-pronged attack has close parallels with some of his other controversial writings, and particularly his *Treatise concerning Enthusiasme* (1655) and his two works on 'credulity' and 'incredulity', published in 1668 and 1670,⁵ and is consonant with his sense of the duties of Anglican scholarship, the duties of 'a Sober Christian', as he puts it.

Michael Hunter and Richard Serjeantson have both stressed Casaubon's place in an Anglican tradition of humanist scholarship,⁶ a milieu which is vividly sketched out in Mordechai Feingold's volume of essays on Isaac Barrow⁷ – a tradition whose principles are embodied in Casaubon's treatise on *Generall Learning* addressed to the young Anglican divine Francis Turner. 'In his account,' Serjeantson says, 'general learning is the basic accomplishment proper to a divine, that is, to a member of the Church of England in holy orders.'⁸ As a young scholar Casaubon was familiar with John Cosin and the Durham house group, gained his first ecclesiastical living from Bishop Lancelot Andrewes, and was made Prebend of Canterbury Cathedral in 1628 by William Laud who was then Bishop of London, and was made Doctor of Divinity by royal command during Charles I's visit to Oxford

Meric Casaubon, A Treatise Concerning Enthusiasme, as it is an Effect of Nature: but is mistaken by many for either Divine Inspiration or Diabolical Possession (London, 1655); Of Credulity and Incredulity In Things Natural, Civil and Divine. Among other things, the Sadducism of these times, in denying Spirits, Witches, and Supernatural Operations, by pregnant instances, and evidences, is fully confuted: EPICURUS his cause, discussed, and the jugling and false dealing, lately used, to bring Him and Atheism, into credit, clearly discovered: the use and necessity of Ancient Learning, against the Innovating humour, all along proved, and asserted. By Meric Casaubon, D.D. (London, 1668); Of Credulity and Incredulity; In things Divine & Spiritual: Wherein (among other things) A true and faithful account is given of the Platonick Philosophy, As it hath reference to Christianity: As also the business of Witches and Witchcraft, Against a late Writer, fully Argued and Disputed. By Merick Casaubon D.D. and one of the Prebends of Christ-Church, Canterbury (London, 1670). On seventeenth-century anti-enthusiasm, see M. Heyd, 'Be Sober and Reasonable': The Critique of Enthusiasm in the Seventeenth and Early Eighteenth Centuries (Leiden, 1995).

⁶ Hunter, *Science and the Shape of Orthodoxy*, 220. Hunter's views are aimed at correcting what he sees as the anachronistic approach of Michael G. P. Spiller which presents Casaubon – à la R. F. Jones – as a conservative 'Ancient' hopelessly opposing the philosophy of the 'Moderns'. See M. G. R. Spiller, 'Concerning Natural Experimental Philosophie': Meric Casaubon and the Royal Society (The Hague, 1980) and 'Conservative Opinion and the New Science, 1630–80: with special reference to the life and works of Meric Casaubon', unpublished B. Litt. thesis (Oxford, 1968).

⁷ M. Feingold (ed.), *Before Newton: The Life and Times of Isaac Barrow* (Cambridge, 1990). See, esp., M. Feingold, 'Isaac Barrow: Divine, Scholar, Mathematician', 1–104; J. Gascoigne, 'Isaac Barrow's Academic Milieu: Interregnum and Restoration Cambridge', 250–90; and A. Grafton, 'Barrow as a Scholar', 291–302.

⁸ R. Serjeantson (ed.), Generall Learning. A Seventeenth-Century Treatise on the Formation of the General Scholar by Meric Casaubon (Cambridge, 1999), 17.

in 1638.9 In 1643 he was ejected as Prebend of Canterbury, and was re-appointed (after seventeen years of relative hardship in Sussex) by Charles II in 1660.10

So what were the 'good [Anglican] Uses' to which Casaubon thought Dee's spiritual diaries might be put? According to his own account Casaubon came across Dee's text shortly after having published his book on 'Mistaken Inspiration and Possession, through ignorance of Natural causes' – that is, the Treatise concerning Enthusiasme – a subject, he says, 'of much Affinity' with the case of Dee's angelic conversations. Having consumed Dee's text with 'eagernesse and Alacrity', he felt that it would be

very Seasonable and Useful, as against Atheists at all times, so in these Times especially when the Spirit of Error and Illusion, not in profest *Anabaptists* only ... doth so much prevail, but in many also, who though they disclaim and detest openly ... the fruits and effects that such causes hath produced in others, yet ground themselves neverthelesse upon the same principles of *Supposed Inspiration*, and immaginary *Revelations*; and upon that account deem themselves ... much better Christians then others.¹²

Casaubon's target, then, are dissenting enthusiasts – such as the Quakers, who claimed to enjoy immediate inspiration from God, rather than Dee and the dangers of occultism *per se*. Indeed if occultism were the main object of his attack, it would seem strange that he opens his preface with an insistence that Dee's angelic conversations should not be simply dismissed as 'A Work of Darknesse'. Dee's work had been taken seriously in his own time, Casaubon points out, and interested parties had included the 'highest Dignity in Europe, Kings and Princes', including the Pope.

Casaubon's determination not to reject Dee's angelic communications outright is shaped by his desire to combat Sadduceeism, that is, those of his contemporaries who, like 'the *Saduces* of old (that is, Jewish Epicures) believe no *Spirit*, or Angel, or Resurrection'. Casaubon's argument will be, then, not that Dee is a devilish magician, but that he has been deceived – and not deceived by his 'scryer' Edward Kelley who related the visions in the stone to

⁹ Serjeantson, Generall Learning, 'Introduction', 1–65 (2–3).

Serjeantson, Generall Learning, 3; A. G. Matthews, Walker Revised: Being a Revision of John Walker's Sufferings of the Clergy during the Grand Rebellion, 1642–60 (Oxford, 1988), 213. Cf. also the notes of the Anglican churchman William Shippen of Stockport (1635–93) on Casaubon in the fly-leaves of his copy of Casaubon's True & Faithful Relation, British Library, 719.m.12: 'Dr Meric Casaubon the Publisher of this Booke was a Praebend of Canterbury (& sequesterd by the Godly Party from 1644 till Restord in 1660).'

On seventeenth-century critiques of religious enthusiasm (including those of Casaubon), see Heyd, 'Be Sober and Reasonable'; A. Coppins, 'Religious Enthusiasm from Robert Browne to George Fox: a Study of its Meaning and the Reaction against it in the Seventeenth Century', unpublished D.Phil. thesis (Oxford, 1984); and A. Johns, 'The Physiology of Reading and the Anatomy of Enthusiasm' in O. P. Grell and A. Cunningham (eds), Religio Medici: Medicine and Religion in Seventeenth-Century England (Aldershot, 1996), 136–70.

¹² Casaubon, True & Faithful Relation, A^r.

¹³ Casaubon, True & Faithful Relation, Av.

him, but by spirits. Spirits which were *real*, but not the 'angels of Light' which Dee presumed them to be, but angels of darkness sent by the devil to deceive him (a popular trope in the anti-magical tradition originating in the New Testament and developed by Augustine in his attack on theurgy in book X of the *City of God*). Not only does this framing of Dee's text make it possible to attack Sadduceeism – here, he will argue, is positive proof of real, and subtle, spirits – but also it enables him to attack the credulity of enthusiasts who all too readily believe in their own visions, revelations and prophecies, and those of their companions.

Casaubon was anxious, however, that these polemical intentions might not be immediately grasped by his readers, and for this reason he has written a preface, because, he says, not all readers will be able, 'by good and Rational Inferences and Observations' to divine the 'good use' for which it is intended. ¹⁴ The testimony of another Anglican churchman, William Shippen of Stockport, would seem to confirm Casaubon's doubts about the transparency of the work's intention. Shippen, who was made a fellow and then Proctor (1665) of University College Oxford and held ecclesiastical livings in Cheshire in the 1660s and '70s, owned a copy of Casaubon's *True & Faithful Relation*, which he carefully corrected against the Cottonian manuscript. In the fly-leaves of his copy he offers some notes on Casaubon, including the following illuminating comment about the atmosphere surrounding its original publication:

I remember well when this Booke was first published that the then Persons who held the Governement had a Solemne Consult upon it as published by the Churche of England therein reproach of them who then pretended so much to Inspiration: & Goodwyn Owen & Nye were Great Sticklers against it, but it was so quickly published & spread & so eagerly bought up as being a Great & Curious Novelty, that it was beyond theyr power to suppresse it.¹⁵

Casaubon himself seemed troubled at the publication of such a long manuscript by way of a negative example. In the end he says, he thought it fit to publish Dee's manuscripts *in extenso* 'though somewhat long', despite the fact that others might have thought 'less might have served the turn', because he had a strong conviction that they were a 'thing very extraordinary', but also because they are 'observable and useful'.¹6 Casaubon further validates his decision to publish the work by claiming that James Ussher, Archbishop of Armagh (who died in 1656) had read Dee's text and had intended to print the work 'to the same purpose'.¹7

Casaubon's doubts about the wisdom of publishing the text, or his inability to control its consumption is clear from the opening paragraph where he

¹⁴ Casaubon, True & Faithful Relation, Av.

¹⁵ Casaubon, True & Faithful Relation, British Library 719.m.12, flyleaf.

¹⁶ Casaubon, True & Faithful Relation, F2^v.

¹⁷ Casaubon, True & Faithful Relation, Ar-v.

attempts to rhetorically position his readers in such a way that they will be constrained to consume the text in the desired way. 'I make no question', he says,

but there will be enough found in the world whose curiosity will lead them to Read what I think is not to be parallell'd in that Kind by any book that hath been set out in any Age to read: I say, though it be to no other end then to satisfie their curiosity.

This, however, is not the purpose for which he has published Dee's writings:

But whatsoever other men, according to their several inclinations, may propose to themselves in the reading of it, yet I may and must here professe ... that the end that I propose to my self ... is not to satisfie curiosity, but to do good, and promote Religion.¹⁸

Casaubon, then, professes no interest in stimulating the 'inclinations' of the curious reader, but wishes rather to edify the pious reader. It is the curiosity of his contemporaries, in fact, rather than the singular curiosity of John Dee, which is the rhetorical target of his polemical preface. Casaubon's ideal readers, of course, are not Shippen's eager consumers of 'a Great & Curious Novelty', but 'Rational men, sober in their Lives and Conversations' like himself and 'such as I have known'. That is to say, a vehemently anti-dissenting Anglican readership.

Anti-enthusiasm

Whilst Casaubon's decision to publish Dee's spiritual diaries might seem rather anomalous in the context of his other works,²⁰ in his own mind at least, there were strong affinities between the *True & Faithful Relation*, and his treatise on enthusiasm and his later works on credulity and incredulity. In his preface to Dee's work, for example, he says that he will be 'no longer then I must at this time' in discussing the matter of spirits because:

I shall have a more proper place in two several Tractates ... my Second Part of Enthusiasme: the other, in my head yet wholly ... to wit, *A Discourse of Credulity and Incredulity* We shall meet there with many cases not so necessary here to be spoken of²¹

In the preface to his 1668 work on incredulity, he informs his readers that the subject of 'Credulity and Incredulity in general' was a theme which had long been on his mind:

¹⁸ Casaubon, True & Faithful Relation, A^r.

¹⁹ Casaubon, True & Faithful Relation, Av.

For a useful overview of Casaubon's publications see Serjeantson, Generall Learning, 4–5.

²¹ Casaubon, True & Faithful Relation, A4^r.

That I had such a subject in my thoughts many years ago, may appear by somewhat I did write in the *Preface* to *Doctor Dee's* book; and then, indeed, I was big with it, had time, and opportunity served. But after that I was once fixed upon other things, or cares, occasioned by that miraculous revolution of affairs in this Kingdom, which soon after hapned²²

Credulity is Casaubon's overarching intellectual conception (and the heart of his ideological position). Credulity is natural to man (and so not to be wondered at in one's opponents), who is a creature apt by nature to be deceived and to desire strange and innovative knowledge:

If we consider the Nature of man, his Bodily frame, the Affections of his soul, the Faculties of his mind, we shall have no occasion at all to wonder if most men are apt to believe and to be cheated ... $\tau\epsilon\varrho\alpha\tau\sigma\lambda\sigma\gamma\iota\alpha$, a desire of, or to strange things that may cause amazement, is the proper affection of the vulgar, that is of most men, which they bring into the world with them ... and cannot be rid of but by wisdom, which is the happinesse of few²³

In his *Treatise of Enthusiasme*, Casaubon, under the guise of presenting a historical reflection on the origins of enthusiasm in pagan antiquity, presented a critique of what he considered to be the mistaken foundations of contemporary religious enthusiasm. Thus his treatise was not to be an 'idle philosophical speculation', but 'of main consequence both to truth in highest points, and publick welfare.' But here I meddle not with policy', Casaubon claims rather disingenuously,

but with nature; nor with evil men so such, as the evil consequence of the ignorance of natural causes ... My businesse therefore shall be as by examples of all professions of all ages, to shew how men have been very prone upon some grounds of nature, producing some extraordinary though not supernaturall effects; really, not hypocritically, but yet falsely and erroniously, to deem themselves divinely inspired: so secondly to dig and dive (so farre as may be done with warrantable sobriety) into the deep and dark mysteries of nature, for some reasons and probable confirmations of such natural operations, falsely deemed supernatural. Now what hath been the fruits of mistaken inspirations through ignorance of natural causes, what evils and mischiefs have ensued upon it, what corruptions, confusions, alterations in point of good manners and sound Knowledge, whether naturall or revealed ... will appear more particularly by several examples and instances²⁵

M. Casaubon, Of Credulity and Incredulity In Things Natural, Civil and Divine. Among other things, the Sadducism of these times, in denying Spirits, Witches, and Supernatural Operations, by pregnant instances, and evidences, is fully confuted: EPICURUS his cause, discussed, and the jugling and false dealing, lately used, to bring Him and Atheism, into credit, clearly discovered: the use and necessity of Ancient Learning, against the Innovating humour, all along proved, and asserted. By Meric Casaubon, D.D. (London, 1668), 'To the Reader', [A6]^v.

²³ Casaubon, True & Faithful Relation, B^r.

²⁴ M. Casaubon, A Treatise Concerning Enthusiasme, as it is an Effect of Nature: but is mistaken by many for either Divine Inspiration or Diabolical Possession (London, 1655), 4.

²⁵ Casaubon, Treatise Concerning Enthusiasme, 4.

This presentation of historical 'examples and instances' of 'mistaken inspirations' with an eye to their contemporary application is also the logic behind his presentation of the case of Dr Dee.

Casaubon recalls his readers minds to his earlier book when he notes that:

both by Reasons from Nature, and by sundry examples proved, that a very little distemper of the brain, scarce discernable unto any, but those that are well versed in the study of Natural causes, is enough to represent Spirits, Angels and Divels, Sights and Stories of Heaven and Hell to the Fancy: by which sober kind of Madnesse and deliration, so little understood vulgarly, many have been, and are daily deceived ... and the peace of Common-weales hath suffered not a little.²⁶

However, this is not the route he will take with Dee. He accepts Dee's Christian piety, his 'Truth and Sincerity' and his 'fidelity in relating what he himself believed'.27 He accepts, in fact, 'the reality of those things that he speaks of'. Dee's sole error, Casaubon adds, albeit a 'great and dreadful' one, was that 'he mistook false lying Spirits for Angels of Light. As Dee's angelic conversations are to be proof of the existence of Spirits against the Sadducees, he shifts his tack away from distempers of the brain to credulity in dealings with evil spirits. 'We will easily grant', Casaubon says, 'that a distempered brain may see, yea, and hear strange things ... But these sights and Apparitions that Dr Dee gives here an account, are of quite another nature' That is, the things which Dee records, whilst unreal in absolute terms are nonetheless the product of 'Spirits, actually present and working, and were not the effects of a depraved fancy and imagination by meer naturall causes.'29 In support of this contention, Casaubon notes that the conversations were witnessed by other people, and that Dee himself often seems to have been a direct witness of the spirits' activities. This, and Kelley's occasional deliberate denial of the trustworthiness of the spirits, and the fact that many of the revelations were 'remote from the vulgar capacities' of a man such as Kelley, are cited by Casaubon as evidence that the scryer wasn't simply a confidence trickster, 'impos[ing] upon the credulity of Dr Dee'.30

No, what Casaubon prefers is to believe that a frank and sincere Christian could, through his own lack of prudence and humility, be duped by Satan. A situation which he compares with that of his own enthusiastic contemporaries. Thus Dee's 'imaginary, delusory' joys and comforts in his revelations are likened to those which 'the Saints (as they call themselves) and Schismaticks of these and former times have ever been very prone to boast of, perswading

²⁶ Casaubon, True & Faithful Relation, B^v.

²⁷ Casaubon, True & Faithful Relation, Dv.

²⁸ Casaubon, True & Faithful Relation, D^v.

²⁹ Casaubon, True & Faithful Relation, D2^v.

³º Casaubon, True & Faithful Relation, D3v-D4r.

themselves they are the effects of Gods blessed Spirit.'31 Dee's sin is, he says, that of 'Spiritual pride':

For if Pride and Curiosity were enough to undoe our first Parent, and in him all mankind, when otherwise innocent, and in possession of Paradise. Should we wonder if it had the same event in Dr Dee, though otherwise, as he doth appear to us, innocent, and well qualified?³²

Casaubon brackets Dee together with other sixteenth-century examples of religious men who had deluded themselves with millennial ambitions, Michael Stifelius (who had tried to convince Luther that the world would end on 29 September 1533, and afterwards refused to recant) and Guillaume Postel. He then shifts his polemical focus from the particular to the general:

But what talk we of particular men? Consider the *Anabaptists* in general. Above an hundred years ago they troubled Germany very much: it costs thousands of lives ... Their pretences were the same; Revelations and the Spirit: the wickedness of Princes and Magistrates, and Christ Jesus to be set up in his Throne ... upon every opportunity of a confused and confounded Government they start up again in the same shape as before; the same pretences, the same Scriptures ... miserably detorted and abused, to raise tumults and seditions in all places. Such is the wretchedness of man that is once out of the right way of Reason and Sobriety.³³

The 'particular case' of Dee, however, is treated more leniently by Casaubon, who partly excuses his 'misapplyed zeal' and 'obstinacy' because of the 'diligence and *subtility*' of the spirits which were supposedly dealing with him.³⁴ The rhetorical advantage here, presumably, is that it acts as a caution to all who consider themselves pious Christians not to stray too far from orthodoxy in their spiritual lives, and a consolation to those who feel confident in their orthodoxy. 'What man can read this sad story,' Casaubon says,

and can be so perswaded of his own Wisdom or innocency, but will in some degree reflect upon himself, and will be moved to praise God, that notwithstanding many provocations (as damnable curiosity, open prophaneness, frequent Oathes, Curses, Perjuries, scandalous Life, and the like) God hath been pleased to protect and preserve him from the force and violence of such enemies of mankinde?³⁵

As in the *Treatise on Enthusiasme*, where Casaubon claimed not to meddle with policy, contemporary religio-political issues are never far from the surface in the Preface. Had the spirits with whom Dee had been dealing been successful in their aims, Casaubon says:

England might have been over-run with Anabaptism (when I say Anabaptism, I mean Anabaptism confirmed and in full power, not as it appears in its first pretentions) long

³¹ Casaubon, True & Faithful Relation, D4^r.

³² Casaubon, True & Faithful Relation, D4v.

³³ Casaubon, True & Faithful Relation, E2^r.

³⁴ Casaubon, True & Faithful Relation, E2^r.

³⁵ Casaubon, True & Faithful Relation, H2^r.

before this: God be thanked that it was not then, and God keep it from it still, I hope is the Prayer of all truly sober and Religious [men].³⁶

Casaubon alludes in his title page to the 'General Alteration of ... States' implied by Dee's apocalyptical mission, and here, as in the Enthusiasm treatise, he inexorably links enthusiasm and social disorder and 'innovation'. 'The Divel is very cunning; a notable Polititian', Casaubon notes, 'Can any man speak better then he doth by the mouth of Anabaptist and Schismaticks?'³⁷

Dee's conversations, and particularly the 'sad story' of the 'promiscuous Copulation' of Dee and Kelley and their wives, are seen by Casaubon as particularly instructive for contemporary readers because:

the cunning and malice of evil Spirits to lead away from God, when they most pretend to God and godliness ... [and] the danger of affected singularity and eminency ... of Spiritual pride and self-conceit, is eminently set out to every mans observation, that is not already far engaged (as in these times too to many) in such Principles.³⁸

The objective is then to undermine the 'affected singularity and eminency' of the enthusiastic or inspired preachers of his own time rather than Dee's own delusions.

The complex 'precatory events' which make up the vast part of the fabric of Dee's angelic conversations are also a focus for Casaubon's contemporary disaffection with enthusiastic or inspired devotions. The 'business of praying is that I would principally insist upon', says Casaubon of Dee's conversations. He notes that in his dealings with the spirits he had 'prayed very earnestly, and with much importunity many times'.³⁹ This accords well with Casaubon's attack on 'Precatorie Enthusiasme' in his 1655 book, where he suggests that misunderstanding of natural ardour in prayer could lead to unfortunate consequences:

But that which giveth most advantage ... to *prayer* ... is that naturall *ardor* or *fervency*, wherewith nature hath endowed some men above others ... The ignorance of this advantage of nature, being unhappily mistaken for true Christian *Zeal*, hath been the occasion of much mischief in the world, and a great stumbling block to simple people, to draw them into the contagion of pernicious Heresies.⁴⁰

'It is no disparagement to Prayer', says Casaubon in the *True & Faithful Relation*, if it 'be abused'. Whilst good in itself, he notes that 'long affected prayers' are characteristic of 'pernicious hereticks' and 'Schismaticks'. In a passage which

³⁶ Casaubon, True & Faithful Relation, H2^r.

³⁷ Casaubon, True & Faithful Relation, E2v.

³⁸ Casaubon, True & Faithful Relation, G^r.

³⁹ Casaubon, True & Faithful Relation, H2v.

⁴⁰ Casaubon, Treatise Concerning Enthusiasme, 213.

⁴¹ Casaubon, True & Faithful Relation, E^r.

anticipates his spirited defence of the Lords Prayer in the following year,⁴² Casaubon alludes to the pernicious social effects of 'the casting and banishing of THE LORDS PRAYER' and attacks the 'furious zeale ... against set prayers' amongst dissenters which he sees as being 'of more concernment to the settling of Peace in the Commonwealth then many men are aware of'.⁴³ Both Dee's delusion and the excesses of inspired Anabaptism, Casaubon implies, are a product of long, extemporary prayer and the misguided zeal on which they are based.

Anti-Sadduceeism

The case of Dee, as I have already noted, was also to be of 'good use' in the fight against Sadduceeism. 'It doth concern Religion in general that we believe [in] *Spirits*,' Casaubon says, because Atheists are 'ready to take the advantage' of any confusion in the matter.⁴⁴ The first half of his preface, therefore, focuses more narrowly on the question of scepticism regarding the existence of spirits. While the existence of 'Spirits, and Witches, and Apparitions' is easily attested by Scriptures,⁴⁵ and while he himself cannot see how 'any Learned man, sober and rational, can entertain such an opinion ... That there be no Divels and Spirits',⁴⁶ Casaubon feels moved to answer the 'great oppugners of the common opinion about Witches and Spirits' – amongst whom he singles out those who are 'Physicians ... and Naturalists by their profession'.⁴⁷ These people, Casaubon laments, will not 'admit of any thing that they think contrary to Reason', and are not to be convinced by Scriptural arguments, so he proposes to argue rationally (albeit with the help of 'some Scripture words' by way of 'Application').

Essentially he argues (a) that spirits must exist because everybody believes that they exist, and (b) that those who disbelieve in them have no rational grounds for doing so. In the first case he seeks to prove that belief in spirits is 'popular and plausible' and that to deny it is folly.⁴⁸ He cites a dictum from Aristotle to the effect that, 'That which is generally believed, is most likely to be true.' That is, he argues that because witches, spirits and apparitions are

⁴² M. Casaubon, A Vindication of the Lords Prayer, as a Formal Prayer, and by Christ's Institution to be Used by Christians as a Prayer against the Antichristian Practice and Opinion of Some Men. Wherein, also their private and ungrounded zeal is discovered, who are very strict for the observation of the Lord's day, and make so light of the Lord's Prayer (London, 1660).

⁴³ Casaubon, True & Faithful Relation, Ev.

⁴⁴ Casaubon, True & Faithful Relation, Fv.

⁴⁵ Casaubon, True & Faithful Relation, Av.

⁴⁶ Casaubon, True & Faithful Relation, Cv.

⁴⁷ Casaubon, True & Faithful Relation, Cv.

⁴⁸ Casaubon, True & Faithful Relation, Av.

generally believed, they are most likely to be true (what we might call the 'millions of scholars can't be wrong' argument). It would be possible, Casaubon says, to 'collect the relations and testimonies out of several Authors and books ... within the compasse of two thousand years, of Authors well accounted of', to prove this to be the case.⁴⁹ These aren't repeated falsehoods (like the Phoenix) he emphasises, but attested to by authors adding 'confirmation of their own knowledg or experience'.⁵⁰ One need only read Nicholas Remigius's *Demonolatria*, which catalogues nine hundred witch trials, according to Casaubon, to be assured that spirits do exist.⁵¹

In the second case, while it is easy to say 'Fabula est, [or] I do not believe' to stories of the doings of witches and wizards, says Casaubon, those that disbelieve in the existence of spirits do not often have 'rational' reasons for what they believe,⁵² and will maintain their disbelief even if they cannot think up a rational explanation for a supernatural occurrence.

Casaubon is particularly scornful of Reginald Scot's *Discouerie of Witchcraft*, which he refers to simply as 'an English book written of this subject to prove that there be no Witches' – and cites with approval a contemporary criticism of him by John Rainolds in his *Praelectiones de libris Apocryphis*:

Our Reginald Scot ... who raves insanely against Bodin, says that Papists maintain that there are no Demons and that they do not hear the name of Jehovah. He takes this from Bodin and attributes it to Papists in general, as if all Papists agreed in it. He continues with this belief himself and just because he has observed some witches, who have on occasions feigned these kinds of narrations, he believes that they are all fictitious⁵³

Casaubon cites this at length because he proposes to attack the 'ground upon which he [Scot] builded', which is the 'same upon which others also, that deny Spirits have gone upon' in a similar way to Rainolds.⁵⁴

This is, in fact, a repeated trope in Casaubon's work – that just because some apparitions are feigned, does not mean that all of them are; it is a question of telling the true from the false, like distinguishing between counterfeit jewels and real ones:

I say therefore that as in other things of the world, so in matters of Spirits and Apparitions, though lyable to much error and imposture, yet it doth not follow but

⁴⁹ Casaubon, True & Faithful Relation, Dr.

⁵⁰ Casaubon, True & Faithful Relation, Dr.

⁵¹ Casaubon, True & Faithful Relation, B2v.

⁵² Casaubon, True & Faithful Relation, Cv.

⁵³ Casaubon, *True & Faithful Relation*, Cr-v: 'Reginaldus Scotus, nostras ... qui contrarium Bodino insanit insaniam, ait Papistas confiteri, non posse Demonas ne audire quidem nomen Iehovae. Acceperat ille a Bodino, & attribuit Papistis in genere, tanquam omnes Papistae in eo conspirarent. Pergit ipse, & quoniam animadverterat quasdam faeminas maleficas, aliquando istius modi narrationes ementiri, putavit omnia esse ficta.'

⁵⁴ Casaubon, True & Faithful Relation, Cv.

there may be reality of truth and certainty discernable unto them that will take the pains to search things unto the bottom ... and are naturally endowed with competent judgements to discern between specious arguments and solidity of truth.⁵⁵

William Shippen, for one, was clearly persuaded by Casaubon's use of the case of Dee as a source of argument against Atheism: 'I doe not see what any sadducee can say when he is pressed with the Truth of these Discourses,' wrote Shippen,

For to Believe all this was mere Melancholy & Enthusiasme in Dr Dee that continued so many yeares in him I thinke is an Assertion too bold for any man to offer. Or to believe that either Bartholomew [or] his son Arthur who did pretend to see did Abuse him I thinke is more then any one will say.

For E[dward] K[elley] no doubt he was a very Rascall but whether he was alwayes an Impostor & pretended to see that he did not & hear also & so long together is very Difficult to believe.⁵⁶

The particularity of Casaubon's presentation of Dee (as both deluded and pious, sincere but mistaken) answers to his twofold need to have him be falsely inspired (like an Anabaptist) but dealing with real spirits (contra the sadducee), the two rhetorical objectives intertwined giving Casaubon's Dee the shape he took for posterity.

Casaubon was not alone in attempting to combat the threats of atheism and enthusiasm within the compass of a single work: Henry More's *Antidote to Atheism* (first published in 1645 and reprinted in an expanded edition in 1655) also attacks the twin targets of Atheism and Enthusiasm, and includes arguments against those who claim that spirits do not exist based on accounts of witchcraft and spiritual apparitions.⁵⁷ '*Atheism* and *Enthusiasm*,' More argued, 'though they seem so extremely opposite one to another, yet in many things do very nearly agree. For to say nothing of their joynt conspiracy against the true knowledge of God and Religion, they are commonly entertain'd, though successively, in the same Complexion.'58 The atheist and enthusiast, he says, 'send mutual supplies one to another':

For the *Atheists* pretence to wit and natural reason ... makes the *Enthusiast* secure that reason is no guide to God. And the *Enthusiasts* boldly dictating the careless ravings of his own tumultuous fancy for undeniable principles of divine knowledge, confirms the *Atheists* that the whole business of religion ... is nothing but a troublesome fit of over-curious *Melancholy*.⁵⁹

⁵⁵ Casaubon, True & Faithful Relation, Dr.

⁵⁶ Casaubon, True & Faithful Relation, British Library 719.m.12, fly-leaf.

⁵⁷ H. More, An Antidote Against Atheism, or, An Appeal to the Naturall Faculties of the Minde of Man, whether there be not a God (1645), 2nd edn 'corrected and enlarged' (London, 1655). The arguments concerning spirits are in Book III, see chs 2–14, 164–260.

More, Antidote (1655), 'The Preface', unsigned sheet between A4 and A5^[r].

⁵⁹ More, Antidote (1655), 'The Preface', unsigned sheet between A4 and A5^[r].

Like Casaubon's, More's targets are 'credulity and fancifulness' in matters of Religion⁶⁰ and 'curiosity of Opinions',⁶¹ and while they would almost certainly have been divided on the issue of the Neoplatonic philosophers (whose Mystical Theology Casaubon believed was 'extremely derogatory to the Scriptures, and to the Doctrine of Christ'),⁶² they were in harmony on the question of enthusiasm and atheism and their deleterious effects on the social and religious dimensions of contemporary life.

Attacks on the 'Cabalistical Man': curiosity and the anti-occult

If the primary targets of Casaubon's preface to the *True & Faithful Relation* were enthusiast or inspired Christians and Atheist-Sadducees, that is not to say that his text is entirely free of criticisms of the occult philosophy. After all, he says,

If there were any such thing, really as Divels and Spirits that use to appear unto men; to whom should they (probably) sooner appear, then to such as daily call upon them, and devote their Souls and Bodies unto them by dreadful Oaths and Imprecations? And again, then to such, who through damnable curiosity have many times used the means (the best they could find in books, by Magical Circles, Characters and Invocations).⁶³

The contemporary learned interest in occult philosophy, magic and the cabala (as can be seen from the publication of English translations of Henricus Cornelius Agrippa's *De occulta philosophia*, Paracelsus's *Archidoxis magica* and the *ars notoria* by John French and Robert Turner in the 1650s, for example)⁶⁴ was clearly a cause for concern, and Dee's credulity in the matter of angelic communications is seen as part and parcel of his predisposition towards these kinds of studies. Dee was, according to Casaubon, 'of himself, long before any Apparition ... a Cabalistical man, up to the ears ... as may appear to any man by his *Monas Hieroglyphica*', a work from which, Casaubon says, he can 'extract

⁶⁰ More, Antidote, [B7]^r

⁶¹ More, Antidote, [A7]v.

Casaubon, *Treatise Concerning Enthusiasme*, 129. To be fair Casaubon qualifies this judgement, by distinguishing between different capacities. Thus while he argues that such mystical theology may be aceptable for 'profound Philosophers' with a 'strong, well-settled and temper'd brain', he nonetheless believed that to 'commend it to ordinary people, and to women especially, is to perswade them to madnesse; and to expose them to the illusions of the Devil'

⁶³ Casaubon, True & Faithful Relation, C^r.

⁶⁴ H. C. Agrippa, Three Books of Occult Philosophy ... Translated ... by J[ohn] F[rench]. (London, 1651), Paracelsus, Paracelsus of the Supreme Mysteries of Nature. Of the spirits of the planets. Occult philosophy. The magical, sympathetical, and antipathetical cure of wounds and diseases ... Englished by R[obert] Turner. (London, 1656), and R. Turner, Ars Notoria: the Notory Art of Solomon, shewing the cabalistical key of magical operations, the liberal sciences, divine revelation, and the art of memory. Whereunto is added an Astrological Catechism, fully demonstrating the art of Judicial Astrology ... Written originally in Latine and now Englished by R. Turner (London, 1657).

no sense nor reason', and which he compares to the works of the 'Hermetic' philosopher Robert Fludd (author of the *Utriusque cosmi ... historia*, 1617–26), William Alabaster (who had published apocalyptical works which made use of his Hebrew scholarship, such as the *Apparatus in reuelationem Iesu Christi* [1607], *Ecce sponsus venit* [1633] and *Spiraculum tubarum* [1633]) and Jacques Gaffarel (author of cabalistic works such as the *Abdita diuinae cabalae mysteria contra sophistarum logomachiam defensa* [Paris, 1625]).⁶⁵

With more than half an eye on the reading habits and intellectual pursuits of some of the inspired brethren he is attacking, and their use of astrological predictions as a support for their millennial beliefs, Casaubon attacks the 'Mountebank-Astrologers, Prognosticators and Fortune Tellers of these days', 66 and condemns the 'Chymical' aspects of Dee's conversations. Although he exempts 'Chymistrie as it is meerly natural', which 'keeps it self within the compass of sobriety', he finds the greater part of alchemy to be 'accompanied with so much Superstition and Imposture, as it would make a sober man, that tendreth the preservation of himself in his right wits, to be afraid of it',67 and he speculates that 'it is not improbable that divers secrets of it came to the knowledg of man by the Revelation of Spirits.'68

Focusing more narrowly on the cabalistic dimensions of Dee's conversations, Casaubon also attempts to undermine some of its intellectual underpinnings, and particularly belief in a primitive or 'Adamic' language. The Book of Enoch and the *Lingua Adami* are cited by Casaubon as the foundation of the Cabala (on the authority of Gregory of Nyssa's diatribes against Eunomius). Scaliger is said to have recovered a fragment of it in Greek, and Jerome and Augustine are cited as having condemned it. Casaubon himself concludes that,

By what I have seen [presumably in Scaliger] it doth appear to me a very superstitious, foolish, fabulous writing; or to conclude all in one word, Cabalistical, such as the Divel might own very well, and in all probability was the author of.⁶⁹

The 'conceit of the tongue which was spoken by Adam in Paradise' is also attributed to Satan, although the angelic alphabet of Dee is said (erroneously) to have been 'published long agoe by one *Theseus Ambrosius* out of Magical books ...'. The differences between Dee's alphabet and Ambrosius are attributed by Casaubon not to the cunning of Kelley, but to the ingenuity of the evil spirits who varied them 'of purpose that they might seem new'.7° If Dee's Relations 'relish ... of *Trithemius* or *Paracelsus*', Casaubon suggests, it is not because Kelley may have been interpolating some of their ideas into his

⁶⁵ Casaubon, True & Faithful Relation, E2v.

⁶⁶ Casaubon, True & Faithful Relation, Cr.

⁶⁷ Casaubon, True & Faithful Relation, E4^{r-v}.

⁶⁸ Casaubon, True & Faithful Relation, E4^r.

⁶⁹ Casaubon, True & Faithful Relation, E4^r.

⁷º Casaubon, True & Faithful Relation, E4^r.

'visions', but because Trithemius and Paracelsus were (like Dee) 'inspired' by the Devil.⁷¹

Trithemius is selected for particular criticism by Casaubon because of the necessity of dealing with Dee's 'angelic characters'. He has reproduced only a 'Specimen' of Dee's tables of characters, he says, because 'it was judged needless, except it were to increase the price of the Printed book.' Casaubon also points out that Dee's attempts to understand these tables were ultimately fruitless, and 'if he made nothing of them (to benefit himself thereby) what hopes had we?' Casaubon unfavourably compares these tables to those of Johannes Trithemius in the Steganographia and Polygraphia and 'others of the same kinde' which he regards as completely unintelligible. Blaise de Vigenère, the sixteenth-century French humanist, translator of Caesar and Livy and author of the Traicté des chiffres, ou secrètes manières d'escrire (Paris, 1587), had read the Steganographia, Casaubon says, 'and doth plainly profess he could make nothing of it', and 'if he could not, that had bestowed such time and pain in those unprofitable studies', then it was unlikely that anybody else would.⁷² Casaubon accuses Vigenère himself, in fact, of having become 'very Cabalistical' in his old age, although interestingly he notes that he once thought his 'book of Cyphers ... a rare piece, as many other things of the same Author, which I had read'.73 Casaubon omits to reproduce the many marginal drawings present in the original manuscript of Dee's work on the grounds that to reproduce them would only be 'to satisfie the childish humor of many Buyers of Books in this Age, when because they buy not to read, must have somewhat to look upon.'74 His reader William Shippen, however, made good this defect in his copy of Casaubon's text, supplying the missing materials from the original manuscript.

It is difficult to know what Casaubon would have made of Shippen's pains, as he considered the study of spirits itself as a form of presumptuous curiosity. He notes, for example, that he knows of some who have taken part in magical experiments, who 'never desired it really', yet

in some wanton curiosity, unadvisedly, that they might be better able to confute the simplicity of some others, as they thought ... have tried some things ... and have seen (with no small astonishment) more then they expected or desired⁷⁵

'Will [Christians]', Casaubon asked, 'hazard so glorious a hope [of seeing God face-to-face], by prying through unseasonable, unprofitable curiosity, into the nature of these Vassal Spirits, which God hath forbidden?'⁷⁶ This is far from

⁷¹ Casaubon, True & Faithful Relation, E2v.

⁷² Casaubon, True & Faithful Relation, G2^{r-v}.

⁷³ Casaubon, True & Faithful Relation, G2^v.

⁷⁴ Casaubon, True & Faithful Relation, H^r.

⁷⁵ Casaubon, True & Faithful Relation, C4v.

⁷⁶ Casaubon, True & Faithful Relation, Fv.

what Casaubon desired in publishing the extensive, detailed manuscript of Dee's spiritual dealings. Rather from his work he hoped his readers would find a general exhortation to avoid magic. From this case he says,

All men may take warning, how they put themselves out of the protection of Almighty God, either by presumptuous unlawful wishes and desires, or by seeking not unto divels onely, directly ... but unto them that have next relations until Divels as *Witches, Wizzards, Conjurers, Astrologers* ... *Fortune tellers*, and the like, yea and all Books of that subject, which I doubt, were a great occasion of Dr *Dee's* delusion.⁷⁷

Whether Casaubon thought his *own* book – which published Dee's dealings with spirits for a wider audience – fell into this last category is not clear.

Curiosity and self-censorship

But for all Casaubon's uses of this book as a source of polemical arguments, the question of his motivations in publishing the very substantial text is still an open one. Above and beyond his intentions for its 'good uses', we must also consider it in the context of his remarks about the book being a 'thing very extraordinary',78 and the recollection of the 'eagernesse and Alacrity' with which he originally read the text in the Cottonian library.⁷⁹ If Casaubon felt it necessary to begin his preface with a prophylactic warning against the curious reader, he is, on occasions, forced to discipline himself as much as the potentially errant reader. After a prolonged discussion of the paraphernalia of Dee's conversations – the 'shewstone', the 'Curtain or Vail' referred to at certain points of the manuscript (which, as he correctly surmises, is not 'somewhat outward' but Kelley's way of describing the temporary interruption of the visions), and the 'Holy Table' preserved in Sir Thomas Cotton's library and reproduced by Casaubon 'represented in a brass Cut' - Casaubon dwells with understandable philological fervour on some interpretative difficulties arising from the ambiguities of phrasing at certain points in the text. Abruptly he pulls himself (and his reader) up short with the following terse remark: 'The Reader that will be so curious, by careful reading may soon finde it out; I was not willing to bestow too much time upon it.'80

It is worth noting here that it is Casaubon who both initiates and then proscribes the curious speculations in question, and is thus exercising a kind of self-censorship. This anxious reflex is visible elsewhere in the text, as when he announces in the midst of a passage on the reasons in favour of the existence

⁷⁷ Casaubon, True & Faithful Relation, Iv.

⁷⁸ Casaubon, True & Faithful Relation, F2v.

⁷⁹ Casaubon, True & Faithful Relation, A^r.

⁸⁰ Casaubon, True & Faithful Relation, G21.

of spirits: 'they that will be so curious may see what hath been written by Cornelius Agrippa (who is very large upon this subject) about it.'81

Is it possible to see in these moments of self-censorship the spectre of Shippen's acquisitive and inquisitive audience visible within Casaubon himself, who (above and beyond his polemical objectives) is dazzled and excited both by the textual complexity and 'extraordinary' historical facticity of the manuscript? As Casaubon's extensive familiarity with the demonological literature and his passing reference to his youthful enthusiasm for the 'Cabalistical' Blaise de Vigenère might suggest, Casaubon could, perhaps – in part – have been the curious reader of his own nightmares.⁸²

⁸¹ Casaubon, True & Faithful Relation, A3v.

⁸² Adrian Johns also notes how Casaubon 'exploited his own experiences to expose enthusiasm'. See Johns, 'Physiology of Reading', 163.

Gentille curiosité: Wonder-working and the culture of automata in the late Renaissance

Alexander Marr

In the *Metaphysics*, Aristotle uses the example of automata to illustrate the assertion that it is wondering (*thaumazein*) about the causes of things that prompts philosophy: 'For all men begin, as we said, by wondering that things are as they are, as they do about wondrous automata.' These marvellous self-moving machines, products of art that imitate nature, provoke the desire to know that leads to philosophy. For automata's apologists in the late sixteenth and early seventeenth century, the authoritative example of Aristotle offered a compelling opportunity to associate self-moving machines with the positive qualities that were increasingly being attributed to both wonder and curiosity. In his compendious treatise on demonology, the *IIII livres des spectres* (1586), Pierre Le Loyer succinctly explains that because Aristotle reckoned automaton-making an estimable occupation, 'one may say that it is an excellent and divine art.' This status-fashioning for automata was necessary because, since antiquity, the reputation of self-moving machines had been in gradual

¹ Aristotle, *Metaphysics*, trans. W. D. Ross (Oxford, 1908), 983a12–15.

² For distinctions between the relationship of wonder to 'the desire to know' and 'curiosity' in antiquity and later periods, see L. Daston and K. Park, *Wonders and the Order of Nature*, 1150–1750 (New York, 1998), 305.

³ For a resumé of the received opinion of wonder in the Renaissance, see P. G. Platt, 'Introduction' in P. G. Platt, Wonders, Marvels, and Monsters in Early Modern Culture (Newark and London, 1999), 15–23. There is a growing body of literature on early modern automata. See, for example, J. P. Zetterberg, '"Mathematicall Magick" in England: 1550–1650', unpublished Ph.D. diss. (Wisconsin, 1976); K. Maurice and O. Mayr (eds), The Clockwork Universe: German Clocks and Automata, 1550–1650 (Washington and New York, 1980); W. Eamon, 'Technology as Magic in the Late Middle Ages and the Renaissance', Janus, 70, 3–4 (1983), 171–203; J. M. Kang, 'Wonders of Mathematical Magic: Lists of Automata in the Transition from Magic to Science', Comitatus, 33 (2002), 113–39. See also A. Marr, 'Understanding Automata in the Late Renaissance', Journal de la Renaissance, 2 (2004), 205–22 for a full bibliography.

^{4 &#}x27;... l'on peut dire que c'est vn artifice excellent et diuin.' P. Le Loyer, *IIII livres des spectres* (Angers, 1586), 155. All translations are my own, unless otherwise specified. I am grateful to Timothy Chesters for bringing Le Loyer to my attention.

decline.⁵ Vitruvius begins the process with a sneering reference to automata as parerga – merely marginal, or ancillary works. More damaging, however, was the increasing association of automata, from the Middle Ages onwards, with some of the pejorative aspects of curiosity such as 'forbidden' or 'occult knowledge', a vice characteristic of Augustine's writings, leading the inquirer away from the proper contemplation of God. These associations stemmed largely from Aquinas' destruction of Albertus Magnus' oracular head which, depending on the account, was occasioned by Albertus' pride at his subtle skill in constructing such a marvel or, even worse, the sorcery employed in its creation.7 The reputation of automata was further tarnished by being bracketed with the much-vilified mechanical arts. While the social and intellectual status of these arts had been gradually improving throughout the sixteenth century, the anxiety of their practitioners over the standing of their work continued well into the seventeenth century, prompting an abundance of rhetorical defences of their disciplines in verbal and visual form.8 For our purposes, however, the fact that automata could be both condemned and praised for being associated with *curiositas* and admiration⁹ makes self-moving machines a fitting example through which to consider these themes, at a time when the standing and purpose of curiosity, wonder and mechanics was experiencing dramatic upheaval and undergoing a thorough reassessment. 10

⁵ This decline was not constant but there is not space in this essay to describe its contours. An example of positive attitudes to automata prior to the period discussed in this essay is the rich medieval tradition associating wondrous automata with civilised modes of courtly behaviour and symbolic power. See, for example, Daston and Park, *Wonders*, 90–100.

⁶ Vitruvius, De Architectura, 9.8.4–5, 10.7.1–4.

⁷ On the differing interpretations of the Albertus/Aquinas story, see Marr, 'Understanding Automata'.

⁸ On the changing status of the mechanical arts in the Renaissance, see P. O. Long, *Openness*, *Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (Baltimore and London, 2001).

⁹ For the terminology of curiosity in this period, see N. Kenny, *Curiosity in Early Modern Europe: Word Histories* (Wiesbaden, 1998). A similar word history of 'wonder' has yet to be composed, but see Daston and Park, *Wonders*, 16, n.9 (for the Greek *thauma*) and Platt, *Wonders*, *Marvels*, and *Monsters*, for useful instances of shifts in terminology and meaning.

The literature on the changing status of wonder and curiosity in this period is extensive. See, for example, H. Blumenberg, *The Legitimacy of the Modern Age*, trans. M. Wallace (Cambridge, MA and London, 1983), 229–453; F. Charpentier, J. Céard and G. Matthieu-Castellani, 'Préliminaires' in J. Céard (ed.), *La Curiosité à la Renaissance* (Paris, 1986), 7–23; S. Grenblatt, *Marvellous Possessions: The Wonder of the New World* (Oxford, 1991); Platt, *Wonders, Marvels, and Monsters*; N. Jacques-Chaquin and S. Houdard (eds), *Curiosité et 'Libido Sciendi' de la Renaissance aux Lumières*, 2 vols (Fontenay-aux-Roses, 1999); Kenny, *Curiosity in Early Modern Europe*; B. M. Benedict, *Curiosity: A Cultural History of Early Modern Enquiry* (Chicago and London, 2001); P. Harrison, 'Curiosity, Forbidden Knowledge, and the Reformation of Natural Philosophy in Early Modern England', *Isis*, 92, 2 (June 2001), 264–90.

I

In the fullest and most lavish book on automata of the first half of the seventeenth century, the French architect-engineer Salomon de Caus (1576-1626) specifically aligns automata of his own design with a 'noble' form of curiosity.11 In the dedication to Elizabeth Stuart (later Electress Palatine and Queen of Bohemia) prefacing Book II of Les raisons des forces mouvantes (1615), de Caus explains that the designs for self-moving machines and artificial fountains therein were begun whilst in the service of the Princess' late brother, Henry, Prince of Wales. 12 Some were designed for 'ornement en sa maison de Richemont',13 as part of the extensive remodelling of the palace gardens.14 The remainder, however, were created 'to satisfy his noble curiosity [gentille *curiosité*] which always desires to see and to know new things'. ¹⁵ In this brief dedication de Caus claims that the subject of his second treatise, a collection of remarkable machines and automata which fell under the rubric of 'wonderworking' or 'thaumaturgy' is, first, a fitting subject for curiosity; second, that this curiosity is not of the common or vulgarly mechanical sort but rather 'gentille curiosité', that is, curiosity worthy of princely status; and third, that this type of curiosity 'desires always to know new things', and that this desire should not to be condemned, nor should such novelties be deemed forbidden, illicit or unimportant.¹⁶

De Caus' keenness to demonstrate the worth of his mechanical contrivances may be set against the backdrop of late sixteenth- and early seventeenth-

On de Caus' life and works see C. S. Maks, *Salomon de Caus* 1576–1626 (Paris, 1935); R. Strong, *The Renaissance Garden in England* (London, 1979), 73–112; T. Wilks, 'The Court Culture of Prince Henry and his Circle', unpublished D.Phil. thesis, 2 vols (Oxford, 1987), i, 143–7, and '"Forbear the Heat and Haste of Building": Rivalries among the Designers at Prince Henry's Court, 1610–12', *The Court Historian*, 6, 1 (May 2001), 49–65; L. Morgan, 'Landscape Design in England *circa* 1610: The Contribution of Salomon de Caus', *Journal for the History of Gardens and Designed Landscapes*, 23 (2003), 1–22.

On whom see R. Strong, Henry Prince of Wales and England's Lost Renaissance (London, 1986).

¹³ It is not clear which of the designs in the second book of de Caus' treatise had been completed and presented to Henry before his death. It is important to note that, as Luke Morgan has recently demonstrated, de Caus' designs for automata illustrated in *Les raisons* were probably not executed during his employment in England. See Morgan, 'Landscape Design in England *circa* 1610'.

On Henry's projects for Richmond, see S. Eiche, 'Prince Henry's Richmond: the Project by Constantino de'Servi', *Apollo*, 148, 441 (November 1998), 10–14.

^{&#}x27;pour satisfaire a sa gentille curiosité, qui desiroit tousiours voir et cognoistre quelque choses de nouveau.' Salomon de Caus, *Les raisons des forces mouvantes tant utilles que plaisantes* (Frankfurt, 1615), 'A la tresillustre et vertueuse Princesse Elizabeth'. For Henry's interest in mechanical contrivances of this sort, see Wilks, 'Court Culture', i, 201–3.

On the associations of curiosity with forbidden or illicit knowledge, see especially C. Ginzburg, 'The High and the Low: The Theme of Forbidden Knowledge in the Sixteenth and Seventeenth Centuries' in *Myths, Emblems, Clues*, trans. J. and A. C. Tredeschi (London, 1990), 60–76; Harrison, 'Curiosity, Forbidden Knowledge'.

century debates over the status and legitimacy of various types of thaumaturgy, succinctly defined by John Dee in his well-known 'Mathematicall Præface' to Billingsley's translation of Euclid's Elements of Geometry (1570) as 'That Art Mathematicall, which giueth certain order to make straunge workes, of the sense to be perceiued, and of men greatly to be wondered at'. 17 A more ample example of the potential distinctions between different types of thaumaturgy and its practitioners in the late Renaissance is provided by the Jesuit Martín del Rio in his popular study of the magical arts Disquisitionum Magicarum Libri Sex (1599).¹⁸ A pervasive theme of Del Rio's treatise is upon people's 'trying to get to know that which they should not know',19 an echo of Paul's condemnation of moral pride - Noli altum sapere - usually interpreted in the Renaissance as a rebuke of intellectual curiosity.20 Del Rio describes this activity as a 'plague' that has spread rapidly, 'diffused by humanity's inborn lust for collecting information',21 itself a symptom of mala curiositas. Indeed, the Disquisitionum is, in many ways, a compendium detailing the legitimate subjects and acceptable limits of curiosity. Del Rio devotes a significant part of his text to the topic of wonder-working, which he associates with what he calls 'operative artificial magic'. This artificial magic is similar to Dee's 'Thaumaturgicke' in that it accomplishes 'remarkable things through human agency'.22 According to Del Rio, there are only two types of artificial magic, 'mathematical' and 'deceitful'. The first rests upon the principles of geometry, arithmetic and astronomy, while the second is concerned with the feats of jugglers, tightrope walkers and the like.23 Under mathematical magic, Del Rio presents a (by this date) ubiquitous list of wondrous automata such as the sphere of Archimedes, Archytas' wooden dove, the bronze birds of Boethius, and so on, noting several familiar sources for these feats, including Cicero,

¹⁷ Dee, 'Mathematicall Præface' in Euclid, *The Elements of Geometrie of ... Euclid*, trans. H. Billingsley (London, 1570), A1^r. On Dee and thaumaturgy, see, for example, F. Yates, *Theatre of the World* (London, 1969).

Del Rio's study of magic proved highly popular, eliciting several editions in the early seventeenth century including a French translation by André du Chesne Tourangeau, *Les Controverses et Recherches Magiques* (Paris, 1611). For a partial English translation see Martín del Rio, *Investigations into Magic*, trans. P. G. Maxwell-Stuart (Manchester and New York, 2000), from which subsequent quotations are taken.

¹⁹ Del Rio, Disquisitionum, 10

See, especially, Ginzberg, 'The High and the Low'; Blumenburg, Legitimacy of the Modern Age; Harrison, 'Curiosity, Forbidden Knowledge'.

²¹ Del Rio, Disquisitionum, 9.

²² Del Rio, Disquisitionum, 51.

On the perceived relationship between wonder-working and juggling or sleight-of-hand in this period, see R. Iliffe, 'Lying Wonders and Juggling Tricks: Nature and Imposture in Early Modern England' in J. Force and D. Katz (eds), 'Everything Connects': In Conference with Richard H. Popkin, Essays in his Honor (Leiden, 1998), 183–210; K. Neal 'The Rhetoric of Utility: Avoiding Occult Associations for Mathematics through Profitability and Pleasure', History of Science, 37 (1999), 151–78.

Plutarch and more recent writers such as Poliziano.²⁴ Significantly, Del Rio makes a sharp distinction between 'modern hydraulics and automata' and 'theatrical' magic, which he calls 'deceitful'. Deceitful magic comprises 'most of the things people believe jugglers, itinerant performers, and tightrope walkers do by means of spells'.²⁵

Del Rio does not return to mathematical magic, devoting the rest of the chapter on artificial magic to the 'deceitful' kind, the implication being that he has sufficiently demonstrated, with a few brief references, that mathematical magic is entirely licit and unproblematic, provided it does not give rise to undue scandal. Del Rio's alignment of self-moving machines with licit practices reflects the growing consensus amongst learned commentators on automata in the late Renaissance that such machines were, at worst, 'merely mathematicall'.26 For example, in the notebooks of the Pesarese scholar and poet Salvator Salvatori, we find a short survey of self-movers sandwiched between a discussion of magnetism and extracts from numerous authors on the origins of magic, largely derived from Del Rio.27 For Salvatori, just as the attraction of a needle to a magnet 'is not a devilishly-contrived artificial effect', the wondrous automata of history are not illicit but created 'by natural magic [p(er) magia naturale]'. Indeed, as Del Rio writes, 'Wonder-working magic, like natural magic, is of itself both good and licit, as all arts of themselves are good.' Yet he goes on to provide examples of when such arts might become illicit: '(a) when they produce an evil result; [and] (b) when they give rise to scandal and people think that these things happen through the agency of evil spirits.'29 For Del Rio and his followers the art of wonder-working itself is not problematic, but its abuse or misinterpretation is.³⁰

²⁴ On the history of Del Rio's sources, see, for example, Kang, 'Wonders of Mathematical Magic'; Marr, 'Understanding Automata'.

²⁵ Del Rio uses the terms *paigna* meaning cheats, games or comic performances, and *kybeia* meaning games of dice or sleights of hand.

²⁶ G. P. Lomazzo, A Tracte Containing the Curious Arts of Painting, Sculpting, and Building, trans. R. Haydocke (Oxford, 1598), bk 2, 2. See also, for example, Le Loyer's emphatic claim that automata and hydraulics both have their origin in mathematics: 'Et quel art enseigne plus d'experiïces ingenieuses & artificielles que la Mathematique, de laquelle & les Automates & les Hydrauliques ont prins leur origine?', Le Loyer, IIII livres des spectres, 155. The seventh chapter of Le Loyer's book, reprinted in expanded editions in 1605 and 1608, begins with a lengthy discussion of self-moving machines.

²⁷ Salvatori, or Salvadori, was active in Pesarese intellectual and literary circles in the 1620s and '30s. His interests are known principally through a two-volume collection of notes and excerpts from books in Latin and Italian on a wide variety of subjects, including cosmology, magic and mathematics (see below, n. 28).

^{&#}x27;Il fascino non è effetto d'artificiosa compore Diabolica.' Biblioteca Oliveriana (Pesaro), MS 313, 'Palimsesto o sia Zibaldone' of Salvator Slavtaori, 83^r. Extracts from Del Rio's *Disquisitionum* are at 88^r–111^v, with references to automata (Archimedes' sphere, the self-movers of Boethius, Architas' wooden dove, and so on) at 95^v.

²⁹ Del Rio, Disquisitionum, 53.

³⁰ John Dee clearly fell prey to Del Rio's second definition of causing scandal in the infamous

II

The growing perception, at least amongst the learned, that automata *in and of themselves* were licit, owed a great deal to the collecting, editing and translation from Greek to Latin, and eventually the vernacular, of a corpus of ancient writings explaining and popularising the principles of the manufacture and operation of hydraulically- and pneumatically-powered machines.³¹ Foremost amongst these writings was Bernardino Baldi's Italian translation of Hero of Alexandria's treatise on automaton-making.³² Baldi's edition is prefaced by a thorough 'Discorso di chi traduce sopra le machine se moventi'. Some thirty-two pages long, it is the most comprehensive printed discussion of automata to appear in the sixteenth century.³³ Baldi begins the 'Discorso' by explaining his reasons for its composition and outlining its contents:

Having translated from the Greek language the Book of Hero of Alexandria on Selfmoving Machines it seemed very necessary to us to do a fair amount of reasoning about the nature of their antiquity, of their end, and of their inventors; and to say also a little bit about the history of the same Hero who, by his antiquity, is very obscure; and to many great men has given cause to err.³⁴

He starts with the assertion that machines belong to a discipline entitled 'Mechanica' or 'Mechanativa', which is a branch of Mathematics dealing not only with mathematical demonstrations but also with 'sensible subjects [soggetti sensibili]' demonstrating 'the wonders [merauiglie] of several effects that occur in them'.³⁵ He goes on to state that he will not be dealing with mechanics in its entirety, but only with those parts concerned with self-moving

^{&#}x27;flying scarabeus' incident (caused by a device Dee created for the staging of Aristophanes' *Pax* at Trinity College, Cambridge, in 1547) which led to his bitter 'Digression Apologeticall' appended to the section of 'Thaumaturgicke' in the 'Mathematicall Præface'.

³¹ Principally the works of Hero of Alexandria and Archimedes. See M. Boas, 'Hero's *Pneumatica*: A Study of its Transmission and Influence', *Isis*, 40, 1 (February 1949), 38–48; Eamon, 'Technology as Magic'; Marr, 'Understanding Automata'.

³² For a general account of Baldi's life and work, see A. Serrai, *Bernardino Baldi*. Le vite, le opere, la biblioteca (Milan, 2002).

Paul Rose, whose interests lay principally in Baldi's apology for mechanics, mentions the lengthy 'Discorso' but passes over Baldi's involved history of wonder-workers and the results of their art, noting only that the 'remaining parts of the introduction are taken up with historical discourses on the place of automata in ancient religious ritual, the history of automata, and the identity of Hero of Alexandria.' P. L. Rose, *The Italian Renaissance of Mathematics: Studies on Humanists and Mathematicians from Petrarch to Galileo* (Geneva, 1975), 247.

^{&#}x27;L'Haver noi transferito dalla lingua Greca il Libro di Herone Alessandrino delle Machine Semouenti, pareua che ci obligasse à far alquanto di ragionamento della natura del l'antichità, del fine, e de gli inuentori loro; & à dire anco alcuna cosa intorno l'Historia di herone medesimo come quella che per la sua antichità, è oscurissima; & à molti grand'huomini ha dato cagione di errare.' Bernardino Baldi, 'Discorso ... sopra le machine se moventi' in Hero of Alexandria, Di Herone Alessandrino de gli automati ouero machine se mouenti, ed. and trans. B. Baldi (Urbino, 1589), 4^r.

^{35 &#}x27;... le meraviglie d'alcuni effetti che accaggiono in loro.' Baldi, 'Discorso', 4^r. Such subjects, he states, include perspective, mirrors and the multiplication of forces.

machines.³⁶ These, he says, were called 'Automati, Automatopijtici, Autocineti' by the Greeks. Throughout the whole *Discorso*, Baldi is particularly concerned to provide wonder-working, as it pertains to automata, with a complex and philologically accurate vocabulary, symptomatic of his humanist training under Federico Commandino.³⁷

Having explained that automata depend for their movement upon the natural propensity of a heavy body to descend to its centre without external aid, Baldi goes on to present a long and involved genealogy of wonderworkers from antiquity to the present day.38 Since he can find no mention of automaton-making in sacred history, Baldi draws the reasonable conclusion that the art must have been discovered by someone in ancient times.³⁹ He goes on to describe, in some detail, the story of Vulcan who worked 'with marvellous industry [con industria meravigliosa]' in the creation of a multitude of wonders, including several automata described by Homer in the eighteenth book of the Iliad, such as 'servants of gold' and 'Tripods, which moved themselves along the road by wheels' and then 'by themselves alone returned to the house.'4° Baldi determines that perhaps Dædalus learned the art of selfmoving machines from Vulcan, and notes that he is mentioned by no less an authority than Plato. Furthermore, he produces evidence from Aulus Gellius and Eudossus regarding the 'wooden dove [Colomba di legno]'41 of Archytas; indeed all of these instances are accompanied by lengthy quotes from the various authorities concerned. Significantly, Baldi also cites a host of modern manufacturers, including Regiomontanus, Giovan' Maria Barocci who, he tells us, presented many automata to Pius V, and one Pietro Griffi of Pesaro, 'huomo singolare nell'arte de'moti, e di marauiglioso ignegno'.42 Baldi discusses in some detail the work of Bartolomeo Campi, also of Pesaro, who made 'a silver tortoise [una tartaruca d'argento]' which walked by itself on the table, moved

³⁶ 'Noi, lasciate da parte l'altre subalternate, ragioneremo delle Mechaniche, e di queste non abbraccieremo tutto il genere, ma discorreremo solo di quella parte di lui, che si distende intorno alle Machine Se mouenti.' Baldi, 'Discorso', 4^r.

³⁷ On which see Rose, Renaissance of Mathematics, 246–7.

³⁸ As noted above, Baldi is not the first writer on automata to provide such a list, though his is the most extensive and detailed.

^{&#}x27;Nelle historie sacre non mi souuene, che si faccia mentione di cosa, mediante laquale possa affermari che in quegli antichissimi tempi fosse discoperta quest'arte.' Baldi, 'Discorso', 4^r.

⁴º 'Tripodi, che mossi per via di ruote se n'anauano da se stessi à combattere frà loro, e poi da se stessi pure se ne ritornauano à casa.' Baldi, 'Discorso', 5^r. In addition to these automata Baldi mentions the invisible net presented to Mars, a chair with hidden traps given to Juno, the shield of Achilles, Diana's bow, the drinking trough of Neptune's horses and the buckle of Hercules, citing Pausanius and Hesiod as his sources (5^r). On the relationship between Vulcan's automata, wonder and skilful craftsmanship, see D. Summers, 'Pandora's Crown: On Wonder, Imitation, and Mechanism in Western Art' in Platt, *Wonders*, 45–75.

⁴¹ Baldi, 'Discorso', 6^r.

⁴² Baldi, 'Discorso', 8^r.

its head and waggled its tail.⁴³ The rest of the 'Discorso' is taken up with an involved apology as to why thaumaturgy should be considered a legitimate art of the highest status. He proposes various ways in which it is useful to the state and to intellectual advancement, while stressing (like Del Rio) that of the two types of magic, one 'leggi' the other 'abbracciata', thaumaturgy is firmly on the legitimate side, being so closely related to mathematics. Baldi, like Hero, essentially uses automata as a vehicle for discussing mechanics, promoting the study of this science as an intellectually worthy, noble and useful art.44 Although not explicitly stated, throughout the 'Discorso' Baldi appears, by a series of elisions, not only to be drawing on mathematics' reputation for certainty of demonstration, but also to be applying this certainty to 'sensible subjects'. By dealing with explanations of 'sensible subjects' Baldi encroached on territory traditionally separate from mathematics – his argument in the 'Discorso', approached through automata as a suitable subject for this sort of speculation, clearly partakes of the increasing application of mathematics to natural philosophy in the early modern period.⁴⁵

Ш

Salomon de Caus, a practising mechanician, presented a striking visual representation of the rhetorical tropes employed by Baldi in the title-page of *Les raisons des forces mouvantes* (Fig. 8.1).⁴⁶ Baldi's genealogy of wonder-workers is present in the prominent figures of Archimedes, shown here engaged in the crown experiment, and Hero with his siphon, both lending classical authority to the content of de Caus' book.⁴⁷ De Caus also includes the founding father

Campi was employed as a military engineer specialising in ingenious devices, in which capacity he served both Spain and France. Tortora, in his discussion of the 1563 storming of Roana, describes Campi as 'huomo raro di questo secolo in tutte le cose ingegnose' (H. Tortora, *Historia di Francia* [Venice, 1619], 98, see also 127–8 and 285 for further discussion of Campi's military contributions). His skill in metalwork is attested to by his manufacture of a suit of armour in the Milanese style made for Emperor Charles V.

In this respect Baldi's concerns are similar to his contemporary Guidobaldo del Monte, also a pupil of Commandino. For Guidobaldo's programme to raise the status of mechanics, see the outstanding article by M. Henninger-Voss, 'Working Machines and Noble Mechanics: Guidobaldo del Monte and the Translation of Knowledge', *Isis*, 91, 2 (June 2000), 233–59.

⁴⁵ This process is discussed in P. Dear, Discipline and Experience: The Mathematicall Way in the Scientific Revolution; and A. de Pace, Le matematiche e il mondo: ricerche su un dibattito in Italia nella seconda metà del Cinquecento (Milan, 1993). Neither author, however, addresses the profound affect of Federico Commandino's restoration of the mathematical arts (and the work of his pupils Baldi and Guidobaldo del Monte) on natural philosophy.

⁴⁶ For de Caus' mechanical practices, see H. Vérin, 'Salomon de Caus, un mécanicien practicien', *Revue de l'Art*, 129 (2000–2003), 70–76.

⁴⁷ On the increasing prominence of Archimedes as a classical authority for the mechanical arts in the Renaissance, see W. R. Laird, 'Archimedes among the Humanists', *Isis*, 82, 4 (December 1991), 628–38. The figure of Archimedes in de Caus' frontispiece derives ultimately from a



Title-page of Salomon de Caus, Les raisons des forces mouvantes (1615). Reproduced courtesy of St Andrews University Library.

of automaton-manufacture in the classical tradition – Vulcan – shown here with his ingenious, self-crafted artificial leg. Opposite Vulcan, the figure of Mercury may refer to the speaking statues of Mercury which frequent the literature on automata at this date, although more likely he appears here in his more usual guise as a general protector of the arts and sciences.⁴⁸ The mathematical nature of de Caus' brand of wonder-working mechanics is stressed by the Greek inscription on the door lintel in the centre of the image: Υ (Υ (Υ (Υ LEIX AFEQMETPHTOX EIXITQ [let no one enter here unless he is trained in geometry]', a reference to the motto supposedly carved above the entrance to the Platonic Academy, linking de Caus' work to both the authority and status of geometry and the *quadrivium*, as well as the august tradition of Plato's philosophy.⁴⁹

The four *putti* perched on the cornice at the top of the title-page represent the four elements of Aristotelian physics.⁵⁰ The manipulation of these elements, as de Caus explains in the opening section of Book I of *Les raisons*, is the basis for the operation of the machines discussed in the treatise. By bringing to his audience's attention the Aristotelian foundations of his wonder-working art, de Caus, like Baldi, suggests that he is engaged in a highly orthodox, legitimate practice, yet one worthy of praise for its ingenuity and skill. Baldi explicitly invokes Aristotle's authority in support of the study of self-movers in the 'Discorso', writing 'following Aristotle, these arts are very ingenious and therefore noble.'⁵¹ Here Baldi implicitly refers not only to the passage from the *Metaphysics* on wonder and automata but also to *Politics* 1253b where, as part of a discussion of slavery, Aristotle points out how useful it would be if 'every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Dædalus or the tripods of Hephæstus'.⁵² It is in this context, the rhetoric of wonder and utility, that the relevance of

woodblock illustration in Walter Ryff's, *Der Architectur furnembsten* ... (Nuremberg, 1547). The illustration of Hero is, to the best of my knowledge, the first depiction of this ancient engineer in the Renaissance.

- It is also worth considering the association between mercury/quicksilver and the functioning of automata: it may be that the figure of Mercury on the title-page invokes Dædelus' statue of Venus, described by Aristotle, which '(by the meanes of quickesilver artificially enclosed within it) did move and stirre of it selfe.' P. Le Loyer, A Treatise of Spectres, trans. Z. Jones (London, 1605), T3^r. In his role as protector of the arts, Mercury is usually accompanied by Minerva. Notably, both appear in this guise on the title-page to de Caus' first publication, La perspective avec la raison des ombres et miroirs (London, 1611).
- 49 The motto also appears in the preface of Agostino Ramelli's *Diverse Machine* (Paris, 1588) and on the frontispiece of Niccolo Tartaglia's *La nova scientia* (Venice, 1537). As de Caus mentions Ramelli by name in the introduction to *Les raisons*, it seems likely that Ramelli's preface was his inspiration.
- They also stand for the subjects addressed in the treatise: pneumatics, hydraulics, garden design and the use of solar rays to heat water, thus powering a fountain.
- 51 '... secondo Aristotile, quell'arti sono ingeniossime, & per consequenza nobili.' Baldi, 'Discorso', 11^r.
 - 52 Aristotle, Politics, trans. W. D. Ross (Oxford, 1921), 1253b33-7.

Hero's treatises is paramount to early modern attitudes towards automata. As Karin Tybjerg notes, in the *Pneumatics* and *Automaton-construction*, as well as his treatise on mirrors, the *Catoptrics*, 'Hero employs the concept of wonder to redefine "useful" knowledge relative to the negative accounts given by certain philosophers.' For sixteenth-century writers on automata, Hero's use of wonder as an apology for automaton-construction, and in particular the mechanics associated with it, proved fertile ground in which to plant their own techniques of persuasion. De Caus' prominent presentation of the elements through the four *putti*, for example, is a reference not only to the orthodoxy of Aristotelian physics but also to Hero's assertion in the *Pneumatics* that the combination of the elements caters for both utility and wonder: 'For through the combination of air, fire, water and earth, and combining three of four principles, varied arrangements can be actualised; these on the one hand provide the most necessary needs of this life and, on the other, display some stunning wonder.'54

If the visual elements of the title-page of *Les raisons* offer a clear expression of de Caus' self-fashioning and apology for automata, the wording of the book's title provides a similar indication of how he wished his work to be perceived. By describing the contents of his book (the 'explanation of moving forces') as 'tant utilles que plaisantes', de Caus employed a rhetoric of utility to enhance the status and appeal of his mechanical knowledge and ingenious devices similar to that used by Aristotle, Hero and Hero's sixteenth-century editors and translators.⁵⁵ The case of de Caus apparently contradicts the opposition between curiosity and utility set up by Daston and Park in *Wonders*

⁵³ K. Tybjerg, 'Wonder-making and philosophical wonder in Hero of Alexandria', Studies in History and Philosophy of Science, 34 (2003), 443–66, 445.

⁵⁴ Hero, *Pneumatics*, 2.18–20 (quoted in Tybjerg, 'Wonder-making', 447). De Caus hints towards the potentially useful applications of wonder-working separate from automata (but linked by the same physico-mathematical principles) through the illustration of a wrecking-claw, glimpsed through the open door in the title-page. This refers to the device supposedly designed by Archimedes at Syracuse, described by Plutarch in his life of Marcellus.

of mechanical arts) in many different contexts. For its use by mathematical practitioners see Neal, 'Rhetoric of Utility'. However, an alternative discourse of mathematics and pleasure, which attempted to divorce itself from 'common' usefulness, ran alongside the rhetoric of utility. This is best expressed by Heinrich van Etten in *Mathematicall Recreations* (1633), and is worth quoting in full: 'Amongst the rare and curious Propositions which I have learned out of the studies of the Mathematicks in the famous Vniversitie of Pont a Mousson, I have taken Singular pleasure in certaine Problemes no lesse ingenious than recreative, which drew me unto the search of demonstrations more dificult and serious; some of which I have amassed and caused to passe the Presse, and here dedicate them to your Honour; not that I account them worthy of your view, but in part to testifie my affectionate desire to serve you, and to satisfy the curious, who delight themselves in these pleasant studies, knowing well that the Nobillitie, and Gentrie rather studie the Mathematicall Artes, to content and satisfie their affections, in the speculation of such admirable experiments as are extracted from them, than in hope of gain to fill their Purses.' H. Van Etten, *Mathematicall Recreations*, trans. J. Lucheron (London, 1633), A3^{r-v}.

and the Order of Nature.⁵⁶ While it is certainly true that curiosity was sometimes pejoratively labelled as 'vain' or 'useless', de Caus' work is just one of many early modern examples in which curiosity or curiosities are presented as complementing, even aiding, utility. In the dedication to Louis XIII of France that begins *Les raisons*, de Caus addresses his prospective patron with the recommendation that:

in order to govern a very great number of people it would be good for the Prince to be not only assisted by a number of men learned in all sorts of arts and sciences, but also that he himself should attend to these subjects and particularly mathematics upon which all the others depend.⁵⁷

The good governance of the realm, de Caus implies, depends both upon the employment of men learned in all manner of arts and sciences (such as de Caus himself) and upon the application of the Prince to the study of mathematics and its subsidiaries, in this case through mechanics and curious artefacts such as self-moving machines.⁵⁸ Firmly in the Aristotelian tradition of the links between automata, wonder and learning, de Caus uses his paper automata as a hook for both curiosity and patronage.

With the exception of his emphasis on the decorative value of automata as garden features, de Caus refrains from articulating just how mathematics, mechanics and automata might actually be 'pleasant' or enjoyable. At the time de Caus was writing, opinion tended towards the concealment of a thaumaturgical device's motive force if the wondrous nature of the artefact was to be appreciated with the proper degree of awe. Writing in the 1630s, for example, Heinrich van Etten explains:

to give a greater grace to the practice of these things [wondrous devices], they ought to be concealed as much as they may ... for that which doth ravish the spirits is, an admirable effect, whose cause is unknowne.⁵⁹

Daston and Park, Wonders, 309–10. See also N. Kenny's essay in this volume.

^{57 &#}x27;... en outre pour gouuerner un si grand nombre de peuple, il sera bon qu'il soit, non seulement assisté d'un nombre de gens versées en toutes sortes d'arts & sçiences, mais aussi que luy mesme soit aucunement entendu, & specialement aux sciences de mathematiques, & à celles qui dependent d'icelles.' De Caus, Les Raisons, dedication.

⁵⁸ It is notable that, as a young boy, Louis XIII was taken to visit the workshop of the hydraulic engineer, automaton-maker and grotto designer Tomasso Francini on several occasions by the physician Jean Héroard. For example, Héroard's journal entry for 25 May 1605 records, 'Il [Louis] va chez Francino et son cabinet, où il s'informe du nom de tout ce qu'il y voit.' Quoted in A. Mousset, Les Francine: Créateurs des Eaux de Versailles, Intendants des Eaux et Fontaines de France de 1623 a 1784 (Paris, 1930), 34.

⁵⁹ Quoted in Eamon, 'Technology as Magic', 203. See also Della Porta's assertion, 'If you would have your works appear more wonderful, you must not let the cause be known: for this is a wonder to us, which we see to be done, and yet know not the cause of it: for he that knows the causes of a thing done, doth not so admire the doing of it; and nothing is counted unusual and rare, but onely so far as the causes thereof are not known.' Giambattista della Porta, *Natural Magick* (London, 1658), 4.

This sensual ravishment of the spirits was frequently associated with the experience of automata in action. Just such an experience, narrated by Jacques Gaffarel in *Unheard-of Curiosities* (1650), is worth quoting in full. He describes

those Admirable Inventions of some certain Instruments, Images, and Figures, which Our Own Age hath brought forth. As, for Example, those Admirable Clocks, which are to be seen; one whereof I saw at Ligorne, brought thither to be sold by a Germane; which had so many Rarities in it, as I should never have believed if my own eyes had not seen it. For, besides an infinite number of Strange Motions, which apeared not at all to the Eye; you had there a company of Shepheards, whereof some played upon the Bag-pipe, with such Harmony and Exquisite Motion of the fingers; as that one would have thought, they had been alive. Others Daunced by Couples, keeping exact Time, and Measure; whiles others capered, and leaped up & down, with so much Nimblenesse, that my Spirits were wholly ravished with the sight. 60

Gaffarel's admiration and rapture was occasioned by several features of the automaton's performance. The first notable condition was that the mechanism remained secret: the machine's infinite number of 'Strangue Motions' appeared 'not at all to the Eye'. The second significant wonder-inducing quality of the automaton, he explains, was the craftsman's skill in suggesting artificial life to the viewer through the 'exquisite' motion of the pipe-players' fingers, and the 'exact Time, and Measure' kept by the dancing couples. However, Gaffarel's praise for the artisan's cunning skill in manufacturing minutely detailed simulacra of nature was not shared by all. For some late Renaissance commentators, the long hours of labour and resulting pride involved in manufacturing such luxury mechanical conceits was a perfect example of the *bad* sort of curiosity. Moreover, objections of this kind were not restricted exclusively to automata. In the preface to John Thorpe's translation of Hans Blum's *The Booke of Five Collumnes of Architecture* (1608), the book's publisher Hans Woutneel writes:

I grant (considering my little skill) you would rather thinke, I should speake somewhat in his praise that makes Flyes so subtill, that the breath of any would move: or in his commendation that made a Coach and horses so small, that a Bees wings could couer. I denie not such labours to be curious: but they are not commodious,

⁶⁰ J. Gaffarel, Vnheard-of Curiosities: Concerning the Talismanical Sculpture of the Persians; the Horoscopes of the Patriarkes; And the Reading of the Stars, trans. E. Childmead (London, 1650), 236. The first French edition of Gaffarel's work was published in 1629. Gaffarel's account illustrates the extent of the trade in small, clockwork automata, chiefly manufactured in the Free Imperial cities of German-speaking Central Europe. For the trade in this type of automata, see Maurice and Mayr, Clockwork Universe; Marr, 'Understanding Automata'.

⁶¹ 'Ravishment of the spirits' by unknown causes, though usually involving an element of craft skill or geometry, is an increasingly common trope in aesthetic responses of the late Renaissance. Henry Wotton, for example, noted of classical architecture that it could '... ravish the Beholder (and hee knows not how) by a secret harmony in the Proportions'. H. Wotton, *The Elements of Architecture* (London, 1624), 12. Similar expressions are used in response to music during this period. See P. Gouk, *Music, Science, and Natural Magic in Seventeenth Century England* (New Haven and London, 1999).

they are even as fit to beautifie a Citie in a time of peace, as the fellows chaine a Flea would leape in, was to barricado or crosse a streete in the time of warre.⁶²

Woutneel's complaint that such artefacts are 'curious but not commodious' singles out two potentially negative features of the curious object: exceedingly small scale or intricacy and the 'subtill' skill involved in its manufacture.⁶³ Woutneel's implication is that an excessive delight in the skill for fashioning exquisite artefacts leads one astray from what should be the proper objects of attention, that is, working towards the good of the locality, commonwealth or state.⁶⁴ His conception of curiosity criticises what he considers to be the superfluity of luxury items, as well as invoking the pejorative connotations of the word's Latin root cura, which could be construed positively as diligence or negatively as prideful over-concentration.⁶⁵ Yet while Woutneel associated the tiny with the insignificant, others praised it as a marvellous quality of both art and nature. Richard Haydocke's 1598 translation of books I-V of Lomazzo's influential Trattato dell'arte de la pittura (1584) included a letter to the author from the Aristotelian scholar John Case, which firmly rebuffed accusations that either smallness or pleasure in fine craftsmanship should be deemed pejorative and associated with vain or useless curiosity.66 Far from being derisory, Case suggests that the tiny scale of insects is in fact praiseworthy:

[I] began to wonder how so excellent a Booke could bee compiled upon so meane a subject; Meane I say in name, but not indeede: meane as we call a Gnatt, in whose life, parts, forme, vice and motion Nature hath bestowed her best arte, and left unto us wonders to behold.⁶⁷

From the late sixteenth century onwards we find numerous comparisons between the exquisite qualities of the minute in nature and the subtle craftsmanship of self-moving machines. John Ray, for example, compared 'those minute Machines endued with life and motion' to '[any] work of Art of extraordinary Fineness and Subtelety, be it but a small Engine or Movement,

⁶² H. Woutneel, 'To ... Iohn land' in H. Blum, *The Book of Five Collumns of Architecture*, trans. I[ohn]. T[horpe]. (1608). On Woutneel, a book and print-seller, see, for example, A. Griffiths, *The Print in Stuart Britain* 1603–1689 (London, 1998), 40–41. On Thorpe, see K. Höltgen, 'An Unknown Manuscript Translation by John Thorpe of du Cerceau's Perspective' in E. Chaney and P. Mack (eds), *England and the Continental Renaissance*, *Essays in Honour of J. B. Trapp* (Woodbridge, 1990), 215–28.

⁶³ On the association of 'curiousness' with fine workmanship, both natural and artificial, see, for example, L. Daston, 'Curiosity and Early Modern Science', *Word and Image*, 11, 4 (October–December 1995), 391–404, esp. 398–9.

⁶⁴ For other contemporary instances of Woutneel's suggestion that architecture is both 'curious and useful', see A. Marr, '"Curious and Useful Buildings": The Mathematical Model of Sir Clement Edmondes', *The Bodleian Library Record*, 18, 2 (October 2003).

⁶⁵ Later in the century, persistent attention was used to characterise the diligent natural philosopher. See Daston, 'Curiosity and Early Modern Science', 400.

⁶⁶ On Case see C. B. Schmitt, *John Case and Aristotelianism in Renaissance England* (Kingston and Montreal, 1983).

⁶⁷ Lomazzo, A Tracte, trans. Haydocke, 'John Case to R. H.'.

or a curious carved or turned Work'. Du Bartas was more specific, describing Regiomontanus' iron fly automaton in similar terms, wondering that:

... the narrow wombe
Of a small flye cold finde sufficient roome
For all those springs, wheeles, counterpoise and chaines
Which stood instead of life, and spurre, and raines.⁶⁹

John Wilkins was even more explicit in his praise for 'littlenesse' when applied to automata, writing in *Mathematicall Magick* (1638) that one of the four circumstances 'for which the Automata of [the moveable] kind, are most eminent' is 'The littlenesse of their frame. *Nunquam ars magis quam in minimis nota est* (saith Aquinas.) The smalnesse of the Engine doth much commend the skill of the artificer.' Wilkins then presents examples of these devices, such as watches 'contrived in the form and quantity of a Jewell for the ear, where the striking of the minutes may constantly whisper unto us, how our lives doe slide away by a swift succession', or one described by Cardano, placed in the jewel of a finger ring, which 'did shew the howers ... not only by the hand, but by the finger too ... by pricking it every hower'.⁷⁰ Examples of just this type of device were manufactured by the Barocci workshop in Urbino for the Dukes of that city, such as a finger ring made by Simone Barocci for Francesco Maria II, which marked the hour by the pricking of the ring-finger.⁷¹

IV

At the heart of these types of discussions about automata is the Renaissance preoccupation with the 'ancient but unstable frontier' between art and nature,

⁶⁸ J. Ray, The Wisdom of God Manifested in the Works of the Creation (1692), quoted in Daston, 'Curiosity and Early Modern Science', 398. See also the examples of magnified insects in Hooke's Micrographia, discussed in the introduction to this volume.

⁶⁹ Guillaume de Salluste, Sieur du Bartas, *Deuine Weekes and Workes*, trans. J. Sylvester (1608), 223. Du Bartas and Ray equate automata with everyday, though no less miraculous, natural creatures such as flies and spiders. These instances, and others too numerous to include here, offer counter-examples to Zakiya Hanafi's association of automata with monstrosity in the early modern period. See Z. Hanafi, *The Monster in the Machine: Magic, Medicine, and the Marvelous in the Time of the Scientific Revolution* (Durham and London, 2000), 76–85 and *passim*. As Daston notes, it is not until the second half of the seventeenth century that 'new opposition opened up between the human art of macroscopic examination and the divine art of microscopic interiors.' L. Daston, 'Nature by Design' in C.A. Jones and P. Galison (eds), *Picturing Science, Producing Art* (New York, 1998), 232–53, 245. Up until mid-century, small-scale machines of art and nature were described in extremely similar terms.

⁷⁰ J. Wilkins, Mathematicall Magick, or, The Wonders That may be Performed by Mechanicall Geometry (London, 1648), 171–2.

⁷¹ For this and other examples, see S. A. Bedini, 'La Dinastia Barocci, Artigiani della scienze di Urbino 1550–1650' in F. Vetriano, *La scienza del ducato di Urbino* (Urbino, 2001), 7–97.

⁷² Daston, 'Nature by Design', 236.



8.2 Anon. (English School?), 'A Drebbelian *perpetuum mobile*' (c.1610–15), MS 273a, The Queen's College, Oxford. Reproduced by kind permission of the Provost, Fellows and Scholars of The Queen's College, Oxford.

particularly, 'Whether art as a rival (aemula) of nature can bring about any things which are truly natural'. To Thomas Tymme, best known to students of automata for his description of Cornelis Drebbel's famous perpetuum mobile, man-made automata could not be anything but natural, since the crafting of artefacts is a process beginning and ending in nature. As part of his answer to the question 'What is nature?' in A Dialogue Philosophicall (1612), Tymme writes: 'To this Nature a certain matter is added: as to the forming of an Image, wood or mettall must be put, upon which also the name of nature must necessarily

⁷³ J. Case, Lapis Philosophicus (Oxford, 1599), quoted in Schmitt, John Case, 193.

be bestowed.'⁷⁴ Tymme's contemporary, John Case, went so far as to cite the biblical authority of Exodus 35:30–33 to designate fine craftsmanship as curious (in the positive sense) and divinely ordained, writing to Haydocke:

And truly had I not read this your Auctor and Translation, I had not fully vnderstoode what Aristotle meante in the sixth booke of his Ethickes, to call Phidias and Polycletus most wise men; as though any parte of wisdome did consist in Caruing and Painting; which now I see to be true; and more-ouer must needs confesse the same, because God himselfe filled Bezaleel the sonne of Uri, with an excellent spirit of Wisedome and understanding, to finde out curious workes, to worke in Golde, Siluer, and Brasse, and in Grauing stones to set them, and in Caruing of wood, euen to make any manner of fine woorke.⁷⁵

While Case used the example of Bezaleel to justify craftsmanship as a virtue in general, Tymme applied this Biblical exemplum to a specific, celebrated manufacturer of automata and infamous Jacobean wonder-worker: Cornelis Drebbel.⁷⁶ Having furnished the reader with a description of Drebbel's perpetual motion machine (Fig. 8.2),⁷⁷ Tymme describes its presentation to James I:

when the King our Soueraigne, could hardly believe that this motion should be perpetuall, except the mysterie were reuealed unto him: this cunning *Bezaleel*, in secret manner disclosed to his Maiestie the secret, whereupon he applauded the rare inuention. The fame hereof caused the Emperour to entreate his most excellent Maiestie to licence *Cornelius Bezaleel* to come to his Court, there to effect the like Instrument for him, sending unto *Cornelius* a rich chaine of gold.⁷⁸

Drebbel himself outlined his wonder-working capabilities in a patronageseeking letter to James I, including claims that he could manufacture fountains

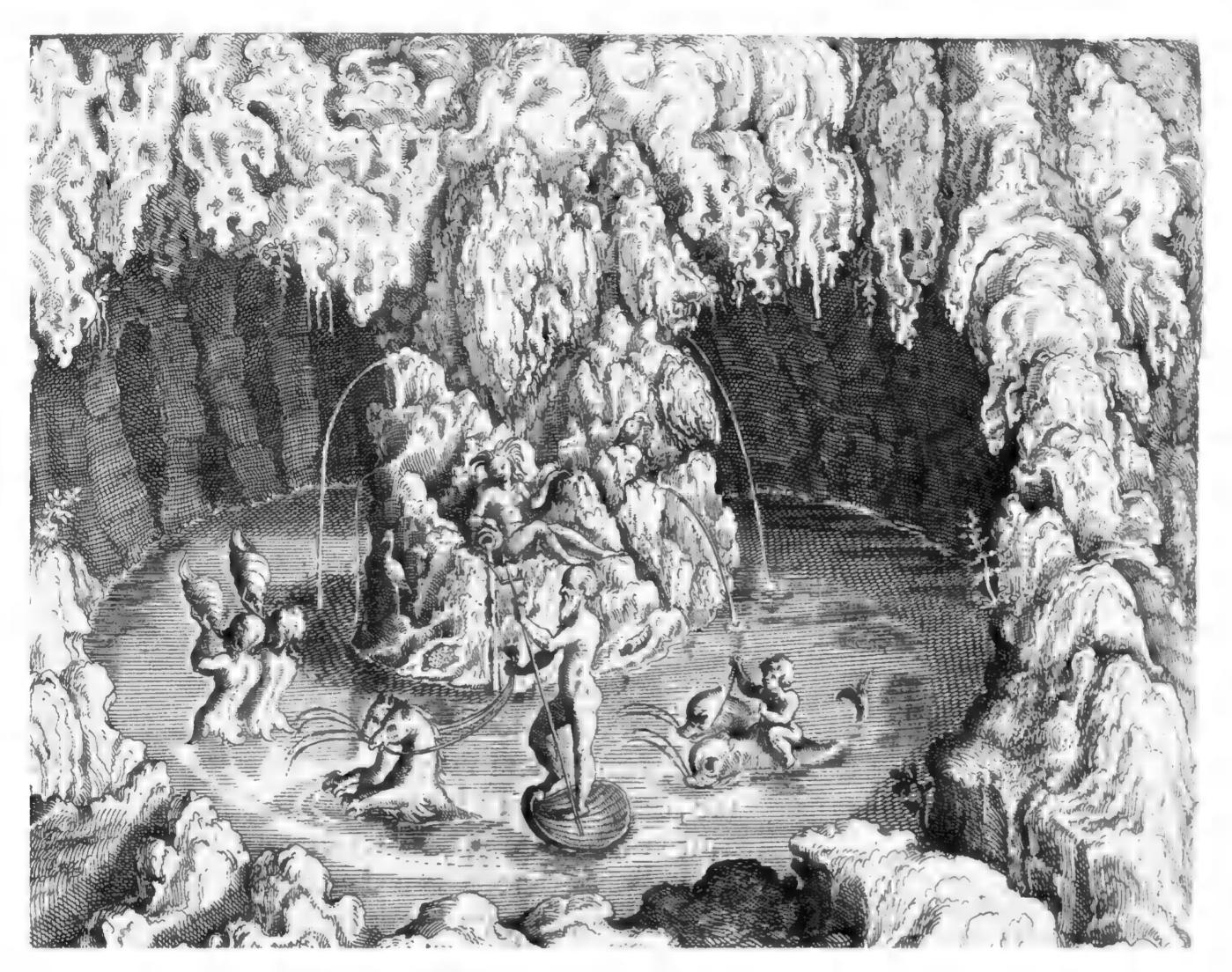
⁷⁴ T. Tymme, A Dialogue Philosophicall wherein Natures Secret Closet is Opened, and the Cause of al Motion in Nature Shewed (London, 1612). See also Schmitt's assessment of John Case' stance on the art-nature debate in John Case, ch. 5.

Tomazzo, A Tracte, trans. Haydocke, 'John Case to R. H.'. In the King James' version the passage reads: 'And Moses said unto the children of Israel, See, the Lord hath called by name Bezaleel the son of Uri, the son of Hur, of the tribe of Judah; And he hath filled him with the spirit of God, in wisdom, in understanding, and in knowledge, and in all manner of workmanship: And to devise curious works, to work in gold, and in silver, and in brass, And in the cutting of stones, to set them, and in carving of wood, to make any manner of cunning work.'

Webster suggests that Bezaleel and Aholiab became models for the 'Christian virtuoso'.
 C. Webster, The Great Instauration: Science, Medicine and Reform 1626–1660 (London, 1975), 327.

⁷⁷ This illustration is a previously unknown, anonymous depiction of a Drebbelian *perpetuum mobile*, published here for the first time. The coloured drawing, dated here to *c*.1610–15, is annotated in English and may have been drawn by a member of Prince Henry's circle. It appears in a composite album of drawings and prints now in The Queen's College, Oxford.

Tymme, Dialogue Philosophicall, 60. It is notable that the Emperor's (Rudolph II) reward of 'a rich chain of gold' for the device follows the same pattern of reward discussed by Mario Biagioli in Galileo, Courtier: The Practice of Science in the Culture of Absolutism (Chicago, 1993). On Drebbel's device, see J. Drake-Brockmann, 'The Perpetuum Mobile of Cornelis Drebbel' in Learning, Language and Invention: Essays Presented to Francis Maddison, eds W. D. Hackmann and A. Turner (Aldershot and Paris, 1994), 124–47.



8.3 Grotto of Neptune from Salomon de Caus, *Les raisons des forces mouvantes* (1615). Reproduced courtesy of St Andrews University Library.

and automata strikingly similar to those illustrated in de Caus' *Les raisons* (Fig. 8.3).⁷⁹ This letter reached a broad audience through being printed in full in Alsted's *Encyclopaedia* (1640) and this, coupled with the renown of his *perpetuum mobile*, led to his fame as a wonder-worker throughout Europe in the first half of the seventeenth century. It is notable that Drebbel represents an early example of a curious individual becoming the subject of curiosity

⁷⁹ In particular, the set-piece automaton in which 'Neptune would appear from a grotto of rocks accompanied by Tritons and sea-goddesses, bathing in the water which surrounds the altar of Neptune', may be compared to Probleme 27 of de Caus' *Les raisons*. This, and other similarities between de Caus and Drebbel's work, strongly suggests some form of exchange between these mechanicians during their employment at the courts of James I and Henry, Prince of Wales, from 1610–12. For a conjectural comparison of de Caus and Drebbel, see Rosalie Colie, 'Cornelis Drebbel and Salomon de Caus: Two Jacobean Models for Solomon's House', *Huntingdon Library Quaterly*, 18 (1954–5), 245–60. An English translation of Drebbel's letter to James is printed in L. E. Harris, *The Two Netherlanders: Humphrey Bradley and Cornelis Drebbel* (Leiden, 1961), 145–8.

himself. An anonymous biographical note on Drebbel in the Rawlinson papers states that 'he was very poore and in his later time kept an ale house below the Bridge, he had an invention of going under the water, which he used so advantageously that many persons were perswaded that he was some strange monstar, and [by] that means drew many to see him, and drink of his ale.'80

Drebbel was certainly known to Robert Burton who notes in the *Anatomy of Melancholy* that 'our alchymists, methinks, and Rosicrucians afford more rarities, and are fuller of experiments', such as 'Cornelius Drible a perpetual motion, inextinguishable lights, *linum non ardens*, with many such feats; see his book *de naturâ elementorum*, besides hail, wind, snow, thunder, &c.'81 It was probably Drebbel's *perpetuum mobile* that Burton had in mind⁸² when he admonished his melancholic readers to go to

noblemen's houses, to see such variety of attires, faces, so many, so rare, and such exquisite peeces of men, birds, beasts &c., to see those excellent landskips, Dutchworkes, and curious cuts of Sadlier of Prague, Albertus Durer, Goltzius, Vrintes, &c. such pleasant pieces of perspective, Indian pictures made of feathers, China works, frames, thaumaturgicall motions, exotic toys, &c.⁸³

Burton's prescription, explicitly associating thaumaturgical motions with high status collecting,⁸⁴ offers an implicit defence for the type of admiration induced by automata through an appeal to wonder's therapeutic properties.

⁸⁰ Bodleian Library, Oxford, MS Rawlinson B.158, 175^r. This may be an early example of curiosity attaching to 'selves', on which, see G. Rousseau's chapter in this volume.

Robert Burton, *The Anatomy of Melancholy* (3rd edn: Oxford, 1628 [reprinted London, 1927]), 354. Although possibly coincidental, Drebbel is also associated with Rosicrucianism by Elias Ashmole who inscribed the title of a Rosicrucian tract beneath a sketch of Drebbel's *perpetuum mobile*. Bodleian Library, MS Ashmole 1417, 3^r.

Thaumaturgicall motions': 'Those rare instruments and mechanical inventions of Jac. Bessonus and Cardan to this purpose, with many such experiments imitated long since by Roger Bacon, in his tract de Secretis artis et naturae, as to make a chariot move sine animali, diving boats, to walk on the water by art, to fly in the air, to make several cranes and pulleys, mills that move themselves, Archita's dove, Albertus's brazen head, and such thaumaturgical works.' Burton, Anatomy, 354. It is notable that Burton's library included Besson's Instrumentorum et machinarum (1569) and Bacon's Epistolae fratris Rogerii Baconis, de secretis operibus artis et naturæ (1618), as well as Francesco Vieri's account of the automaton-filled garden of Pratolino, Discorsi ... delle meravigliose opere di Pratolino et d'amore (1587). See N. Kiessling, The Library of Robert Burton (Oxford, 1998), 16, 30 and 315. For Burton's knowledge of Heronic automata, see Marr, 'Understanding Automata'.

⁸³ Burton, *Anatomy*, 348. The adjective 'thaumaturgicall' is added by Burton to the second edition and repeated in subsequent editions. On this passage, see E. P. Vicari, *The View from Minerva's Tower: Learning and Imagination in the Anatomy of Melancholy* (Toronto, 1989), 180–81. What Vicari pejoratively characterises as Burton's tendency to 'founder in mere lists', I prefer to see as an appropriate response to wonder-inducing variety in the service of the cure of melancholy.

⁸⁴ Vicari's suggestion that 'such pleasures might be well beyond the reach of the average melancholy patient', and her further elision that they were equally beyond Burton, neglects both the adoption of melancholy as a fashionable, aristocratic affliction amongst early modern English élites, and the fact that Burton himself rubbed shoulders with countless noblemen at Oxford. See Vicari, *Minerva's Tower*, 185.



8.4 Peter Paul Rubens and Jan Breughel I, *The Sense of Sight* (1617–18), Prado Museum, Madrid.

Moreover, as the above passage derives from the section of the *Anatomy* entitled 'Study, a cure', it appears that Burton considered thaumaturgical wonders in a similar fashion to Aristotle, that is, as curiosity-arousing artefacts. Yet his indiscriminate recommendation of a host of objects, subjects and pursuits smacks of the gadfly interests of the curious *virtuoso* ridiculed in Shadwell's satire of the same name. Burton revels in the copious variety of his lists: 'Mappes, Pictures, Statues, old Coynes of seueral sorts in a faire Gallery, artificiall workes, perspectiue glasses, old reliques, Roman antiquities, variety

⁸⁵ It is important to note that although the inducement of wonder was increasingly considered a 'pedagogically sound approach to learning', a glut of wonder was equally seen as an impediment to education. See Hanafi, *The Monster in the Machine*, 190–93. Michael Screech notes that in the Renaissance, 'Astonishment, too, was associated with melancholy. Since *estonnement* is an ecstasy, it is not explained simply in terms of the soul's being stunned within the body but as the soul's striving to leave its body behind ... Many experience ecstasy in the sudden presence of goodness, beauty, truth, bravery or any great-souled action, especially when unexpected.' M. A. Screech, *Montaigne and Melancholy: The Wisdom of the Essays* (London, 1983), 33.

⁸⁶ This delight in variety is lampooned by Coffeteau in *Le tableau des affections humaines* (Paris, 1626), a work contemporary with Burton's *Anatomy*. Having ridiculed the curious person's obsessive desire to pry into every conversation, no matter how secret, Coeffeteau notes that if he is refused he launches into a cascade of descriptions of implicitly frivolous subjects: 'Lors il tombe sur les Mines d'Escosse, ou sur les grandes neiges d'entan; ou quand la riuiere fut dernierement glacee, ou leur bat les oreilles d'vn grand poisson naguere pris je ne sçay où.' Coffeteau, *Le tableau des affections humaines* (Paris, 1626), 469.

of colours' – objects vividly depicted in countless 'pictures of cabinets', which became a fashionable genre of painting in the first half of the seventeenth century, particularly in Antwerp (see, for example, Fig. 1.2). Such images, and their written counterparts, seem to offer a take on curiosity that is somewhat antagonistic to the engravings of early modern collections and the accompanying catalogues of these repositories.

Neil Kenny has claimed that the 'curious' objects in cabinets 'always had distinct borders defining the limits of an object ... and those borders never touched those of the next object, from which they were always separated by an intervening space. Items were not piled up on top of each other or squeezed up against each other.'88 While this might be true of the images and descriptions of collections gathered by naturalists seeking to amass a physical encyclopaedia (such as Ferante Imperato or Cospi),89 capriccio-like depictions of the Wunderkammer, such as Rubens and Jan Breughel I's The Sense of Sight (1617–18 [Fig. 8.4]), or Frans Francken II's The Archdukes Albert and Isabella in a Collector's Cabinet (1626, Walters Art Gallery), present a mass of curious objects, from paintings to naturalia; globes to automata, piled together in arrangements in which the convenient museological space between objects is notably absent.90

It has been argued that the removal of automata from the context of these cabinets of curiosities into the studies of men of letters and the laboratories of natural philosophical societies in the second half of the seventeenth century completed the transformation of self-moving machines from vice to virtue, neatly mirroring Blumenberg's narrative of 'theoretical curiosity'.⁹¹ The systematic investigation of the properties of automata associated with Descartes, Wilkins, Hooke and others, appears, at first glance, to offer a compelling example of the shift from the flickering, unstable curiosity of the

⁸⁷ On this genre, see the frequently overlooked study by S. Speth-Holterhoff, Les peintres flamands de cabinets d'amateurs au 17e siècle (Brussels, 1957). See also M. Winner, Die Quellen der Pictura-Allegorien in gemalte Bildergalerien des 17. Jahrhunderts zu Antwerpen, unpublished diss. (Cologne, 1957); S. Alpers, The Art of Describing: Dutch Art in the Seventeenth Century (London, 1983); Z. Filipczak, Picturing Art in Antwerp 1550–1700 (Princeton, 1987), esp. 47–163.

⁸⁸ Kenny, 'Curiosity in Early Modern Europe', 169.

Origins of Museums: the Cabinet of Curiosities in Sixteenth- and Seventeenth-Century Europe (Oxford, 1985); K. Pomian, Collectors and Curiosities: Paris and Venice 1500–1800, trans. E. Wiles-Portier (Cambridge, 1987); A. Lugli, Naturalia e mirabilia: Il collezionismo enciclopedico nelle Wunderkammern d'Europa (Milan, 1990); P. Findlen, Possessing Nature: Museums, Collecting and Scientific Culture in Early Modern Italy (Berkeley, Los Angeles and London, 1996).

⁹⁰ Notably, Drebbel's *perpetuum mobile* appears in the right-hand corner of Francken's image. Drebbel's device was clearly a stock curiosity for these images, depicted in a large number of known 'pictures of cabinets'.

⁹¹ See, for example, Drake-Brockmann, 'Perpetuum Mobile of Cornelis Drebbel', compared with Blumenberg, Legitimacy of the Modern Age.

virtuoso's wondrous encounter with 'ravishing' machines, to the sustained, rigorous enquiry of the 'scientist'.92 As Lorraine Daston eloquently observes, 'stamina as well as a flash of interest was required of scientific curiosity.'93 Yet while automata may have provided just such a stimulus in certain localities (the Royal Society for instance), in others, such as Athanasius Kircher's museum in Rome, or the numerous Jesuit missions, automata were valued for their ability to induce an *excess* of wonder, inspiring reverential awe.94 Even Descartes, who famously derided the dizzying variety of the *Wunderkammer*, was profoundly influenced by the wondrous self-moving machines created by mechanicians such as the Francini and de Caus.95 Thus, while rhetorical justifications for self-movers may have changed their tone by the middle of the seventeenth century, debates over their status continued well into the Enlightenment.96

⁹² See, especially, Dennis des Chene, Spirits and Clocks: Machine and Organism in Descartes (Ithaca and London, 2001).

⁹³ Daston, 'Curiosity and Early Modern Science', 400.

⁹⁴ See Iliffe's 'Lying Wonders and Juggling Tricks', for an outline of some of these issues. On excessive wonder and stupefaction, see, for example, Hanafi, *Monster in the Machine*.

⁹⁵ See Des Chene, Spirits and Clocks, 13, n. 1.

⁹⁶ See R. Benhamou, 'From "curiosité" to "utilité": The Automaton in Eighteenth Century France', Studies in Eighteenth-Century Culture, 17 (1987), 91–105; S. Schaffer, 'Enlightened Automata' in W. Clark, J. Golinski, S. Schaffer (eds), The Sciences in Enlightened Europe (Chicago, 1999), 126–65.

Nosce teipsum: Curiosity, the humoural body and the culture of therapeutics in late sixteenth- and early seventeenth-century England

Deborah Harkness

Fuelling early modern inquiry into the body and its properties was a mandate that can be encapsulated in one popular injunction: *Nosce teipsum* – know thyself. Medical manuals, anatomical drawings and even popular poetry commanded men and women of all ages and stations to know and understand their own living and functioning (or, for most people, malfunctioning) humoural body.¹ One's own body provided a perfect subject of study: readily accessible, sensate and vitally able to illuminate bodily processes. Francis Bacon, in his essay on health, explained how the study of one's own body, and the knowledge that such study engendered, were crucial to establishing and maintaining good health. 'There is a wisdom in this [study of the body] beyond the rules of physic:' Bacon wrote, 'a man's own observation, what he finds good of, and what he finds hurt of, is the best physic to preserve health.' Though modern medicine prizes the physician's objectivity and impartiality when making judgements about a patient, Bacon and many of his contemporaries valued highly the patient's subjectivity – his or her embodied knowledge of the body and self – in matters of health. 'Examine thy customs of diet, sleep, exercise, apparel, and the like', Bacon encouraged, and reminded his readers not to ignore the most expert person with regards to their body – themselves: 'forget not to call ... the best acquainted with your body, as the best reputed of for his faculty.'2

¹ See M. H. Porter, 'English treatises on physiognomy, c.1500–c.1780', unpublished D.Phil. (Oxford, 1998).

² F. Bacon, 'Of Regiment of Health', from *Essays* (1625) in B. Vickers (ed.), *Francis Bacon: A Critical Edition of the Major Works* (Oxford, 1996), 403–5. The literature on subjectivity and objectivity in the period of the Scientific Revolution is vast, but a useful starting point that problematises our modern notions of the transparent value of objectivity in scientific discourse is a pair of essays by Lorraine Daston and Peter Dear which appeared in *Social Studies of Science*. See L. Daston, 'Objectivity and the Escape from Perspective', *Social Studies of Science*, 22 (1992), 597–618; P. Dear, 'From Truth to Disinterestedness in the Seventeenth Century', *Social Studies of Science*, 22 (1992), 619–31. On the

This essay seeks to explore how an interest in the body, encouraged by the dictum *Nosce teipsum* and the therapeutic culture of the time, was manifested and expressed in late sixteenth- and early seventeenth-century England. Cultures of therapeutics, I argue, emerge in specific contexts and are marked by a similar ethos regarding the human body and its proper function; a common set of medical practices such as the analysis of urine or the prescription of diets or drug regimens that monitor and adjust individual health; and a shared vocabulary for expressing bodily states of illness and health that is negotiated by both medical practitioners and their patients.³ I examine the English culture of therapeutics not to suggest that it was unique, but rather to suggest that further close readings of surviving patient narratives and other material artefacts of European therapeutic cultures, such as correspondence, medical formularies and receipts books (including the patient narratives of Montaigne and women of Eisenach, and the vivid self-portraits of Dürer), may open up additional fruitful avenues of analysis for historians of medicine and curiosity.4 This particularised and localised account contributes to the burgeoning study of curiosity and wonder by foregrounding therapeutic accounts and using them to question the tricky threshold between medieval and early modern curiosity. Early modern interest in studying the self – both the soul and the body that housed it – provides an intriguing and problematic case study in the history of curiosity. Though my approach here is necessarily episodic and impressionistic because of limitations in the available sources – individual accounts of illness, excerpts from medical formularies, and entries from scientific and medical notebooks – I hope to show that a highly subjective curiosity flourished between the patristic, medieval view of curiosity as an intellectual vice and the new sensibility of curiosity, emerging in the late seventeenth century, that prized curiosity as a disinterested, even objective,

importance of embodied, subjective knowledge and its problematic relationship to the growth of obejctivity as a cornerstone of scientific practice in the seventeenth century, see S. Shapin, 'The Philosopher and the Chicken: On the Dietetics of Disembodied Knowledge' in C. Lawrence and S. Shapin (eds) *Science Incarnate: Historical Embodiments of Natural Knowledge* (Chicago, 1998), 21–50. For a specific treatment of Bacon and objectivity, see J. R. Solomon, *Objectivity in the Making: Francis Bacon and the Politics of Inquiry* (Baltimore, 1998).

- 3 Andrew Wear points to a 'common medical culture of diagnosis' in early modern England that included patients, their families, lay practitioners and learned practitioners, but my intent is to expand the category to include not just diagnosis but cure, counsel, and the ways in which illness and health were articulated. See A. Wear, *Knowledge and Practice in English Medicine*, 1550–1680 (Cambridge, 2000), 113.
- 4 The works mentioned here are suggestive rather than exhaustive, and merely indicate some of the possible objects of study for someone interested in discussing a specific culture of therapeutics. Michel de Montaigne, Complete Works of Montaigne, trans. D. M. Frame (Stanford, 1980). The patient narratives of the women of Eisenach, Germany are discussed in Barbara Duden's pathbreaking study, The Woman Beneath the Skin: A Doctor's Patients in Eighteenth-Century Germany, trans. T. Dunlap (Cambridge, MA, 1991). For a provocative use of Dürer's self-portrait, see M. C. Schoenfeldt, Bodies and Selves in Early Modern England: Physiology and Inwardness in Spenser, Shakespeare, Herbert, and Milton (Cambridge, 1999), 1–2.

form of inquiry into features of the natural world. As such my conclusions are suggestive rather than definitive, and I may seem to pose more questions than I resolve.

One of the greatest challenges to historians interested in the changing meanings of curiosity in the liminal late sixteenth and early seventeenth centuries is the gap between etymology and practice. The sources of the period reveal that the use of the word 'curiosity' was largely pejorative and only beginning to be used as a designation of something rare or deserving careful attention, despite the fact that many other noted hallmarks of curiosity - such as restless inquiry and the pursuit of particular knowledge - can be discerned. Recently a fluorescence of studies has outlined how curiosity was transformed from a vice to a virtue in western European discourse.⁵ These studies reveal that in the medieval period curiosity was often decried as a sinful interest in knowledge either beyond the scope of human understanding or in vain, empty matters that lacked utility and worth. By the late seventeenth century, however, curiosity had become, in most discourses, a virtuous tool in the arsenal of the natural philosopher – a spur to inquiry and a way of fostering important inquiries into the natural world. This transition to more modern notions of curiosity was still controversial into the eighteenth century, and in the period surveyed here (the late sixteenth and early seventeenth centuries) the shift had certainly not occurred and the study of the self – either an increasingly Calvinistic attention to the soul, or a therapeutic attention to the body – occupied a tense middle ground between virtue and vice.

The tension between medieval and modern notions of curiosity is evident in Sir John Davies's (1569–1626) famous poem *Nosce Teipsum* (1599). Playing on the trope of humanity's diminished capacity for knowledge, despite the apparent growth of letters and learning, Davies exhorted his readers to follow the classic dictum to 'know thyself' rather than investing in the fleeting and dangerous attractions of worldly knowledge. In Davies's poem, curiosity was the force that had first corrupted humanity and resulted in the expulsion of Adam and Eve from Paradise:

Why did my parents send me to the Schooles That I with knowledg might enrich my mind? Since the *desire to know* first made men fooles, And did corrupt the roote of all mankind ...

⁵ The works to receive the most attention in recent years are H. Blumenberg, *Der prozeß der theoretischen Neugierde* (Frankfurt am Main, 1988) and L. Daston and K. Park, *Wonders and the Order of Nature*, 1150–1750 (New York, 1998). William Eamon carefully considers the role that curiosity played in the 'books of secrets' tradition in western European natural philosophy in *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton, 1994), especially 58–66. Peter Harrison's 'Curiosity, Forbidden Knowledge, and the Reformation of Natural Philosophy in Early Modern England', *Isis*, 92 (2001), 265–90, provides a more nuanced and particularised account of the points of tension and intersection shared by curiosity and knowledge.

And when their [Adam and Eve] reason's eye was sharpe and cleere, And (as an eagle can behold the Sunne)
Could haue approcht the' eternall light as neere,
As th'intellectuall angels could haue done;

Even then to them the *Spirit of lies* suggests, That they were blind, because they saw not Ill; And breathes into their incorrupted brests A curious *wish*, which did corrupt their *will*.⁶

Davies saw contemporary men and women still behaving like Adam and Eve, intent on satisfying their curiosity and increasing their knowledge by consulting books. But such behaviour merely reinscribed the ill effects of the expulsion onto nature, and underscored the failures and futility of curiosity:

But we their wretched Ofspring, what do we? Do wee not still tast of the fruite forbid, Whiles with fond fruitlesse curiositie In bookes prophane we seeke for knowledge hid?⁷

Inquiring into the self rather than seeking knowledge of externals should manifest proper curiosity, for Davies:

We that acquaint our selues with euery *Zoane*, And passe both *Tropikes*, and behold the *Poles*; When we come home, are to our selues vnknowne, And vnacquainted still with our owne *Soules*. We study *Speech*; but others we perswade; We *Leech-craft* learne, but others Cure with it; We'interpret *Lawes*, which other men have made, But reade not those which in our harts are writ ...⁸

Throughout the poem, the pre-Cartesian Davies collapses the distinctions between body, soul and mind.9 Finally, Davies writes:

My selfe am *Center* of my circling thought, Onely *my selfe* I studie, learne, and *know*. I *know* my Bodi's of so fraile a kind, As force without, feavers within can kill; I *know* the heauenly nature of my mind, But tis corrupted both in *wit* and *will* ...¹⁰

⁶ J. Davies, *Nosce Teipsum*, in *The Poems of Sir John Davies*, ed. R. Krueger with an introduction and commentary by R. Krueger and R. Nemser (Oxford, 1975), 1–67 at 6. For a discussion of the poem in relationship to the reform of natural philosophy in seventeenth-century England, see Harrison, 'Curiosity, Forbidden Knowledge, and the Reformation of Natural Philosophy', 266.

⁷ Davies, Nosce Teipsum, 7.

⁸ Davies, Nosce Teipsum, 9.

⁹ For further information on the disappearance of clear-cut divisions between body and soul during the thirteenth to the fifteenth centuries, see C. W. Bynum, *Fragmentation and Redemption:* Essays on Gender and the Human Body in Medieval Religion (New York, 1992), 227.

¹⁰ Davies, Nosce Teipsum, 11.

The tensions in Davies's poem – between body and soul, the internal self and the external world, knowledge and curiosity – demonstrate the problematic terrain that curiosity occupied in late sixteenth- and early seventeenth-century England. The poem also suggests that a possible resolution to the tension between virtue and vice could be achieved through the laudable and necessary study of the self.

The dictum to 'know thyself' was used not only in conjunction with the study of the soul, but also in medical discourse and in vernacular medical publications. In England during the late sixteenth and early seventeenth centuries, evidence suggests that a curious and attentive stance towards the body was both common and accepted among both patients and medical practitioners. This attentive regard for the body may well have been linked to an understandable anxiety or concern regarding ill health, but worry does not preclude fascination or curiosity. Indeed, Daston and Park have noted how important medical practitioners were to 'the shaping of a sensibility of cultivated wonder toward phenomena in the physical world', but they are less attentive to the ways in which a medicalised curiosity flourished among patients.11 With every man and woman exhorted to engage in medical therapies after arming themselves with knowledge of the body, it became increasingly important for people to have a basic familiarity with humoural medical concepts. Among literate élites throughout Europe this knowledge was gaining sophistication due to the flourishing of vernacular medical publishing that supported and helped to foster the culture of therapeutics.

The humoural body and the culture of therapeutics

What is most striking about the English medicalised curiosity about the self was that it was not expressed through the anatomical theatre and the dissections that took place there – the *locus classicus* for early modern historical inquiries into the relationship between the body and curiosity. Dissections, adopted by the

¹¹ Daston and Park, Wonders, 172.

of the more important recent contributions and autopsies in the early modern period abound. Some of the more important recent contributions include A. Carlino, *Books of the Body* (Chicago, 1999); J. Sawday, *The Body Emblazoned: Dissection and the Human Body in Renaissance Culture* (London, 1995); R. French, *Dissection and Vivisection in the European Renaissance* (Brookfield, 1999); K. Park, 'The Criminal and the Saintly Body: Autopsy and Dissection in Renaissance Italy', *Renaissance Quarterly*, 47 (1994), 1–33; N. G. Siraisi, *Taddeo Alderotti and His Pupils: Two Generations of Italian Medical Learning* (Princeton, 1981); G. Ferrari, 'Public Anatomy Lessons and the Carnival: the Anatomy Theatre of Bologna', *Past and Present*, 117 (1987), 50–106. Studies of the Dutch anatomical tradition have tended to focus on visual depictions of anatomy, for example B. Baljet, 'The Painted Amsterdam Anatomy Lessons: Anatomy Performances in Dissection Rooms?', *Annals of Anatomy*, 182 (2000), 3–11; J. Lakke, 'Autopsy Practices for Brain Dissections and Rembrandt's Anatomy Lesson of Dr Deyman', *Journal of the History of the Neurosciences*, 7 (1988), 101–7.

universities of the Middle Ages as didactic exercises, had, by the Renaissance, become highly theatrical spectacles attended by medical practitioners, curious bystanders and even (if the illustrations are to be believed) a smattering of women. During a public dissection, questions about the human body beneath the skin – its structures, cavities and secret interior spaces – were opened up to analytical public view.¹³ Vivid illustrations of dismembered body parts accompanied anatomical texts, students took copious notes on the proceedings, and artists such as Rembrandt painted elaborate iconographical canvases on which dissected bodies and living medical practitioners jostle for pride of place. The dissection-driven history of the early modern body centres on the city of Padua and the physician Vesalius, who exemplified the Renaissance tendency to set aside such ancient authorities as Galen and, with newly curious eyes, seek information from the Book of Nature. The complex interactions that took place between anatomist, corpse and spectators constituted what Jonathan Sawday has called the 'culture of dissection' – at once a culture of inquiry into the structures of the human body and a showcase for the curiosity of medical practitioners.14

There was no comparable culture of dissection in early modern England. Though public anatomies were performed at Oxford and Cambridge universities, and in London at both the College of Physicians and Barber-Surgeons' Hall, there is no evidence that they generated the same kind of curiosity as they did on the continent. Well-known surgeon John Banister—a man deeply interested in anatomy who wrote an anatomical compendium drawn from classical and contemporary authors—admitted that he found reading Vesalius 'tedious'. No detailed notes have survived of English anatomies from this period, with the exception of cursory references in manuscripts such as Thomas Lorkyn's brief marginal notes about the costs and personnel of two Cambridge anatomies of the 1560s. Nor did English practitioners produce detailed anatomical drawings that were then disseminated by the press, with the exception of Thomas Geminus's translation of Andreas Vesalius's

On the different types of dissection that were practised in the early modern period, see A. Cunningham, 'The Kinds of Anatomy', *Medical History*, 19 (1975), 1–19.

¹⁴ Sawday, Body Emblazoned, ix.

¹⁵ J. Banister, A Historie of Man, Sucked from the Sappe of the Most Approved Anathomistes, in this Present Age (London, 1578), Aiiij^v.

Thomas Lorkyn's reports of the dissections at Cambridge appear as marginal notes in books from his library now housed at Peterhouse. See P. M. Jones, 'Thomas Lorkyn's Dissections, 1564/5 and 1566/7', Transactions of the Cambridge Bibliographical Society, 9 (1988), 209–29. Additional information on dissection in Cambridge and Oxford can be found in F. Valdez, 'Anatomical Studies at Oxford and Cambridge' in A. G. Debus (ed.), Medicine in Seventeenth-Century England: A Symposium Held at UCLA in Honor of C. D. O'Malley (Berkeley, 1974), 393–420; H. M. Sinclair and A. H. T. Robb-Smith, A History of the Teaching of Anatomy in Oxford (London, 1950); A. Macalister, The History of the Study of Anatomy in Cambridge (Cambridge, 1891).

anatomical works.¹⁷ Where continental authors drew elaborate illustrations of anatomical theatres and detailed depictions of flayed corpses, which were widely printed and reprinted, John Banister's *The Historie of Man* (1578) offers only five illustrations, all based (like Geminus) on Vesalius: a front and rear view of the human skeleton; a front and rear view of the musculature; and an illustration of the specialised instruments used to perform anatomies.¹⁸ So limited is the evidence produced by practitioners and witnesses of public anatomies in England, and so meagre are the printed illustrations of such anatomies, that historians of medicine have wondered whether dissections took place with any regularity, despite the statutes of institutions like London's College of Physicians and the Barber-Surgeons' Company, which allowed for four public anatomies a year.¹⁹

The body curiosity of early modern English men and women was organised and expressed in strikingly different ways. It was manifested, not through a culture of dissection, but through a culture of therapeutics that was centred on a subjective study of one's own body rather than a nominally objective eyewitnessing of the dismemberment of someone else's body.²⁰ English men and women regarded *patients* as best suited to judging a medicine's effects based on a close reading of their own body's reactions to a given therapeutic regime, rather than over-privileging the perspectives of medical practitioners such as Vesalius or John Banister. In contrast to the corpse-centred culture of dissection on the continent, the English culture of therapeutics undertook an invasive, but not usually deadly, examination of the interior processes of *living* bodies through specific evacuative therapies like bleeding, purges and vomits.²¹ The early modern English culture of therapeutics, while strikingly different from the early modern culture of dissection, was nevertheless a serious inquiry into the curious workings of the human body.

¹⁷ See S. V. Larkey, 'The Vesalian Compendium of Geminus and Nicholas Udall's Translation: Their Relation to Vesalius, Caius, Vicary, and de Mondeville', *The Library*, 13 (1933), 367–94.

¹⁸ Banister, *Historie of Man*, *ij^v, 38^r, 43^v, 63^r and [113^r].

¹⁹ For London's Barber Surgeons, the public anatomies were to be held 'within the comon Hall of the said mysterye'. London Guildhall, MS 5257/2, 3^r (c.1570). Several scholars have commented on the dearth of English accounts, including P. M. Jones, 'Thomas Lorkyn's Dissections', 212. We know, for instance, that William Harvey performed dissections, but his cursory descriptions are far different from the more detailed and extensive continental accounts of the period. L. Wilson, 'William Harvey's *Prelectiones*: The Performance of the Body in the Renaissance Theater of Anatomy', *Representations*, 17 (1987), 62–95 at 74.

²⁰ My findings regarding subjectivity and the culture of therapeutics (as expressed in material artifacts such as those described below) are strikingly similar to what Michael Schoenfeldt has described as attention to 'inwardness' in the literature of early modern England. In his argument, he emphasises how 'Galenic medicine led individuals to a kind of radical introspection', which led authors such as Shakespeare and Milton to 'express inwardness materially' without resorting to the 'promiscuous inwardness of the anatomised corpse'. Schoenfeldt, *Bodies and Selves*, esp. 1–22.

The predilection for purgative medicines was widespread in early modern England. See, for example, L. Pollock, With Faith and Physick: The Life of a Tudor Gentlewoman, Lady Grace Mildmay, 1552–1620 (London, 1993), 114, 119, 120–21, and 124.

Such a culture depended upon a belief that subjective knowledge of the body was valuable, and on a belief in the humoural body's permeability and propensity for imbalance.²² The humoural system of beliefs about the body had not yet declined, as it would later in the seventeenth century under the weight of Cartesian mechanism, the development of new physiological concepts such as the circulation of the blood, and the further exploration of Paracelsian medicines.²³ In the sixteenth and early seventeenth centuries the humoural body, constantly in flux and in need of self-mastery and regimentation, was an important object of curiosity and study. The humoural body was an ideal object for the curious mind, for its intractable instability fostered a sense that its secrets would never be completely disclosed, and it produced a plethora of materials – phlegm, blood, bile, urine, stools and vomit – that could be externalised and analysed to shed light on the body's secret, interior spaces.²⁴ Three inter-related medical practices helped to shape the culture of therapeutics and the curiosity it expressed: first, seeking advice about one's body from medical practitioners; second, pursuing a recommended course of therapy and closely monitoring the body's responses; and third, keeping a written record of the therapy, its administration and its effects, as well as notes about alternative therapies.

Advice from good physicians: mapping the body in the culture of therapeutics

Despite the early modern English interest in self-knowledge and its implications for the practice of medicine, few patients, no matter how intent on following the command to 'know thyself', ignored medical advice from reputed experts. Just as the first step in the culture of dissection was for the physician to consult an authoritative medical text and read the relevant anatomical passages before opening the body to further study, after peering into his or her body's secrets, the first step in the English culture of therapeutics was for the patient to gather medical advice. The seemingly endless pursuit of wise medical counsel on

For more details on the bodily humours and their importance in medical discourse, see N. G. Siraisi, Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice (Chicago, 1999), 104–6.

On the decline of Galenism in the seventeenth century, see L. S. King, 'The Transformation of Galenism' in Debus, *Medicine in Seventeenth Century England*, 7–31.

Two classic studies on the body and its management are N. Elias, *The Civilizing Process* (1978), trans. Edmund Jephcott, 2 vols (Oxford, 1983) and M. Foucault, *Discipline and Punish*. Gail Kern Paster has related the humoural body's need for management to a broad range of cultural and literary preoccupations. See G. K. Paster, *The Body Embarassed: Drama and the Disciplines of Shame in Early Modern England* (Ithaca, 1993) and 'Purgation and the Allure of Mastery: Early Modern Medicine and the Technology of the Self' in L. C. Owen (ed.), *Material London, ca.1600* (Philadelphia, 2000), 193–205.

the part of thousands of chronically sick individuals was the driving force within the early modern English medical economy, and it played an equally strong role in fostering curiosity about the body. Advice was available at a cost that would suit anyone's purse, from medical empirics who peddled their cures at the gates of the City of London for pennies, to members of the College of Physicians who commanded high fees while seeing their patients in the private rooms of well-appointed residences.²⁵ Most of this counsel, it is believed, occurred in largely unrecoverable face-to-face interviews during which the medical practitioner might examine the patient's complexion, cast a horoscope, discuss symptoms, or scrutinise urine in order to make a diagnosis and prescribe suitable remedies, but written counsel or *consilium* was also a feature of the culture of therapeutics.²⁶ These encounters were crucial to an understanding of one's own body and its functions and made it possible for the patient to examine it with a balance of subjectivity and expertise.

An important result of such encounters was that patient and practitioner collaborated in the creation of a descriptive anatomy – a kind of working map – of the patient's body and its processes. The patient contributed observations about his symptoms, such as how hot he was, how thirsty, how many stools he had passed, whether or not he was experiencing difficulty eating or sleeping. Literate patients were primed for such encounters through their familiarity with popular vernacular medical publications. Because the body's secrets were 'mervailous', as John Banister explained, and discussing them was the 'hardest point in Philosophie', there was a ready market for books concerned with health and therapeutic aids which not only aided the patient's inquiry into their body and its functions but also helped to shape a vocabulary of disease and illness shared by practitioners and patients.²⁷ As Paul Slack has discovered, textbooks on medical theory and practice written for a lay audience and collections of remedies were the most widely-printed English medical works in the period, and the prefaces to these books 'often insist upon their usefulness in patient-physician relationships'.28 The medical practitioner in turn explained what those symptoms might mean and provided a preliminary diagnosis linked to an imbalance of Galenic humours, the improper digestion of food, or some other malfunction of bodily processes. Spurred on by this new

²⁵ M. Pelling (with F. White), Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550–1640 (Oxford, 2003), 230.

For a discussion of those face-to-face encounters of patients with medical practitioners, including taking pulses and uroscopy, see Wear, *Knowledge and Practice*, 120–23. For more on the role of physician as counselor, both medical and moral, see H. J. Cook, 'Good Advice and Little Medicine: The Professional Authority of Early Modern English Physicians', *Journal of British Studies*, 33 (1994), 1–31.

²⁷ Banister, *Historie of Man*, Aiij^v.

²⁸ P. Slack, 'Mirrors of Health and treasures of poor men: the uses of the vernacular medical literature of Tudor England' in C. Webster (ed.), *Health, Medicine, and Mortality in the Sixteenth Century* (Cambridge, 1979), 237–73 at 260.

information, the patient might provide additional details of the complaint, and so on. Eventually, the practitioner would settle on a course of therapy for the patient that would include both medicines and recommendations regarding sleep, exercise and diet.

One particularly busy Elizabethan civil servant, William Cecil, was so consumed with matters of state that his medical counsels took place not only in face-to-face encounters but also by post. These documents give us a clear window into the importance of consultation in the culture of therapeutics. Cecil was particularly curious about a cluster of illnesses that plagued him and his family, namely gout, scoliosis, deafness and eye complaints. In addition to scores of medical receipts from the Queen's own physicians and other well-known practitioners, Cecil received lengthy discourses from lesser-known individuals with reputed expertise in areas of medicine related to the Cecil family's health and well-being. Though Cecil's communiqués to these practitioners no longer survive, the responses do. They illuminate how a patient's knowledge about his own body and those of his family members grew and changed as a result of medical advice, and how patient input shaped and focused the therapeutic counsel that was given.

The two practitioners that Cecil most often consulted about his family's health were the Queen's physician Richard Masters, and the Spanish physician Hector Nunez.²⁹ Both men wrote regularly to Cecil on health matters, and Nunez was especially forthcoming with his curious and thoughtful patient. In 1581, for example, Nunez had been called to an audience with Mildred Cooke, Cecil's wife. Lady Cecil had shown Dr Nunez a letter from her husband concerning the clyster or enema that he had been taking according to the physician's instructions. Apparently, the clyster was effective – too much so. Nunez wrote, 'and so [at your request] I have taken away some of the purging stuff, and ... I trust that it has worked gently enough.'³⁰ Because of a change in the weather, Cecil had determined that he would take no further purging medicines for a time. 'I do like very well ... that counsel,' Nunez answered, 'but if your clyster hath not worked sufficiently ... then your lordship may take tomorrow in the morning around 5 am 4 oz of sweet almond oil newly drawn, which I ... made freshly by your wife's

²⁹ For more information on Masters (or Master, as he is sometimes known), see E. L. Furdell, *The Royal Doctors: Medical Personnel at the Tudor and Stuart Courts* (Rochester, NY, 2001), 76–7. Masters, an Oxford medical graduate, was made physician-in-ordinary to the Queen early in her reign. See *Patent Rolls*, 1558–60, 94. For more information on Nunez (also known as Nones and 'Dr Hector'), see Pelling (with White), *Medical Conflicts*, 168.

³⁰ For this, and all subsequent quotations from manuscripts, I have modernised the spelling and the grammar in the body of the text to make the citations more readable and to clarify meaning. I do, however, include the original language in the footnotes. British Library, London [hereafter BL], MS Lansdowne ^{33/39} (²⁸ June ¹⁵⁸¹): 'Right honrabell, my good lady yor wyfe did sende for me yester daye for to showe me your writinge conssernynge yor glister, and so I have taken a waye some of the porginge stoffe, and so I truste that yt hath rought Gentell enoffe.'

commandment.'31 The almond oil, Nunez promised, would 'open' Cecil's body four or five times, meaning that it would cause him to go to the privy and purge the contents of his stomach and intestines. But the ultimate decision about his course of therapy resided with Cecil, not Nunez. The doctor wrote, 'if the clyster has worked sufficiently enough, then your Lordship may defer ... using the oil for a day or two.'32

This entire exchange was clearly not marked by the patient's passive acceptance and application of whatever the physician prescribed. Cecil and his wife actively shaped the therapeutic regime: demanding changes to the medicine, dictating when the medicine would (and would not) be taken, and voicing specific expectations about the quality of the preparations used. The Cecils' participation in the therapeutic process suggests that their curiosity about the body and its processes was considered a crucial component of medical care. Nunez, a foreign-born and continentally-trained physician, clearly valued his prestigious patient, but found his constant meddling in the therapy frustrating. Later in the same letter, Nunez responded to Cecil's complaints of a persistent cough by pointing out that Cecil would never rid himself of the cough until he did something to fix its root cause, which Nunez attributed to a 'continuall falling of the rheume' towards the lungs. 'For that cause', Nunez lamented, 'I did wish your Lordship to use the lozenges, which you refused to do.' However, it was vital that Cecil stop the descent of his rheumatic humour, 'and because your Lordship will be better satisfied when you know what you do use', Nunez sent him a detailed description of a new therapy, along with the medicine itself. In case Cecil remained reluctant, Nunez added a final incentive for him to try his new rheum medicine: 'your good Lady doth like ... [it] very well.'33

³¹ BL, MS Lansdowne 33/39 (28 June 1581): 'And for as much yor Lordeshippe did wright that you woulden take no purgacyon because the wether is so hot, I doe like very well of that counsell, but if yor glister ath not wrought sufficient enofe then yor lorde shippe maye take to morowe in the mornynge about fyve of the clock 4 oz of oyell of swet almonse newlye drawen, wch I caused to be made fresshe by my ladyes comandement.'

³² BL, MS Lansdowne 33/39 (28 June 1581): 'And that you moste take wth a litell suger kande or a lome or mixced wth a litell whit wine, for this will open yor bodye fower or five times / and yt is singuler good for yor beste / but if the glister hath rought sufficient enoffe then yor Lordeshipp maye defare the usinge of the oyell for a daye or too.'

³³ BL, MS Lansdowne 33/39 (28 June 1581), 'I doe hear that yor lordshippe is vexced very much with the coffe and prosedinge of the continewall falinge of the rewme, the things with be comenly usede for the easinge of the coffe will not prosper with yor Lordshipp unlesse you doe use some thinge for the stavinge of the rewme / and for that cause I did wishe yor Lordshipp to use the lossinges, with you reffused to doe / and because yt is a nesesary thinge the stanig of the same umor and yor Lordshipp will be better satisfyed when you knowe what you doe use, I doe sende you hear the discripcyon of serin kinde of manes crist with I did devise for the same perpose and my good Lady doth lick very well of them so you may take one of them to night when you gooe to bede, and breake yt in yor mouth / and cary yt downe in to yor stomake, for surly if yt doe not staye you rewme yor longes beinge in some danger of hortinge yor longes / the Lord for bid yt should be soe / therfore I besiche you use yt as you tender your health /.'

Though Cecil might have been a particularly demanding patient, he was certainly curious about his body, and his medical caregivers respected that curiosity. In the winter of 1585, Cecil once again consulted Nunez about his gout, which bothered many élite gentlemen of the early modern period. Nearly four years after the previous exchange, however, Nunez was still not satisfied that Cecil was giving enough weight to his theory that the gout stemmed from a descent of rheumatic humours from the head. Nunez pointed to the signs that heralded an attack of the gout for his patient: 'most commonly before you be assaulted with your pain you are encumbered with cough, rheume and sneezing and you feel in the nape of your neck unnatural coldness, or "extraordinary coldness" as you call it.'34 Now that the constellation of manifestations was fixed in Cecil's mind, Nunez drew on Galen for a powerful analogy to help his patient visualise a rheumatic head: 'Galen makes a very apt comparison ... he compares our brains to a sponge full of water which as long as it is not touched, keeps the water still ... [but] if it is pressed or wrung ... then the water falls down.'35 Cecil's brain, Nunez argued, was being affected by the cold air, which caused his brain to seep rheumatic humours out of its sponge-like interior and into his neck and lungs. 'Because your Lordship senses the descent [of these humours] through the nape of your neck (... after your general purging)', Nunez wrote, the best course of therapy was to apply local remedies to the head to dry out the humour and intercept it before it fell into the lungs.³⁶

By mapping out the locations of various humours, how they rose and fell according to external and internal circumstances such as the weather and purges, and drawing vivid pictures of bodily processes, Nunez not only satisfied his patient's curiosity about what was happening inside him, but also made it possible for Cecil to make further useful observations about his body.

³⁴ BL, MS Lansdowne 43/55 (23 January 1584/5): 'for moste comonleye beffore you be asalteade wth yor paine you be Combreade wth coffe rewme and neessinge and you felle in the nape of yor necke unnaturall couldnes or extraordenery as you call it.'

³⁵ BL, MS Lansdowne 43/55 (23 January 1584/5): 'and in my oppinyon Gallen dooth make a verey apte comparyson to the same. for he doothe compare ower Braines unto a Spoundge full of watter wch as longe as he is not Toutcheade kepethe the watter still and if it be preased or wringead wth on hnde then the watter faleth downe.'

³⁶ BL, MS Lansdowne 43/55 (23 January 1584/5): 'So like wisse ower Braine beinge full of moyestur Beinge strainiead wth the Couldnes of the ayer drapeth downe the moyesture contaniead in them and so breedeth all desases p[ro]sedinge of the rewme. And because yor Lordshippe dooth felle sensibell the desendinge downe throughe the mape [sic] of yor necke I doe thinke (after yor generalle purdginge) that it wear fyt to make in that plasse awaye to Isewe out continualley the same hewmer, and so the course being interseptead shall be an occasyon to kepe you frome the same griffe yet not omytinge the strethenynge of yor braines By lockall remedyes applyeade unto yor heade to drey moderatly the same moyesture; And I hope that this beinge well youseade you shall never be constrained to kepe yor bead for that griffe specyalley usinge some mennes nowe and then To strenthen yor Joynts and that will be donn more easeley if the course of the hewmer beinge interceaptead as a foresayde.'

Nunez successfully convinced Cecil that the problem stemmed from his brain, no matter how remotely the trouble manifested itself, and Cecil's rheumatic head became the dominant therapeutic paradigm for his future consultations with medical practitioners. In December 1585, for example, Cecil complained to the Queen's physician, Richard Masters, about cricks in his neck. Masters agreed with Dr Nunez 'that purging cannot benefit your Lord unless you purge from the brain and joints.' Cecil's predilection for purging, and his physicians' worries that he was purging inappropriately for someone suffering with a rheumatic head, had become the focus of therapeutic discussion.

Masters drew on medical counsels between the famous French physician Fernel and two of his noble patients to give Cecil a better sense of what happened during purges, and how someone with Cecil's complaints could make best use of purgatives. First, it was important that a skilled physician supervise the purge, for 'unless the physician purges exquisitely (by stirring the humors, rather than purging with force) he shall increase the rheume and pain, sometimes doubling them.'38 The reason for handling his purges delicately, Masters explained, was the thinness of Cecil's rheumatic humour. 'If it were thick', Masters noted, 'it would not so quickly descend into the joint.' Masters recommended that if Cecil continued to take purging medicines, he should make sure to 'purge the head by ... [taking] vaporous mastica[to]ries ... which hitherto your Lordship has always omitted.'39

Cecil's sense of his own body changed dramatically as a result of the medical counsel given by Nunez and Masters over the course of several years, but it was always tempered by his own insights. In 1591, Cecil wrote to Sir Edward Kelley in Prague to request his return to England. In addition, Cecil invited Kelley's therapeutic suggestions to ward off his 'old enemy the gout' during the next winter. '[It] is rather bred by a cold humour than a hot, and principally by a rheumatic head', Cecil reported. Here Cecil has clearly been persuaded by the advice of Nunez and Masters about the root cause of his illness. But Cecil still reserved a place for his ongoing curiosity about his body

³⁷ BL, MS Lansdowne 46/38 (11 December 1585): 'Ryght honorable the last co[m]playnt yow made, abowt the crickes in bothe sides off yor necke, hathe made me continually to muse abowt the same, and am drawen to held to Mr hector, that nothyng can benefyte yor L. by purgyng except the same do purge from ye brayne and joyntes'

³⁸ BL, MS Lansdowne 46/38 (11 December 1585): 'Fernelius writythe ij counsells one to d. du Parae I[n] actu cesus viro percelebri, and the other to the margs off brandenb. and in bothe counsells gyvythe thys note, that except the phisicione purge exquisitely (by sturryng the humors, rather then in purging off the forth[)] he scha increse the reume and payne, ye often tymes duble them, and therfore many be so terrified that they abstayne from takynge off al medicines, et hoc uno electario 'ex diacharchamo' incipientes dolores sepe fininimus.'

³⁹ BL, MS Lansdowne 46/38 (11 December 1585): 'And to drie the hedde every mornyng he wyll picke ^ij^ lylte grislt bugges to be stuffyd wt the flowers of sage, maioram, stoechados, wt the seades of anyse, fennel, fenugreke, and myllyt, al corrified wt salt in a frieng panne, and applied to the hedde by corse one after a nother untyl they wax cold applyid ^I say^ syncipiti et cernici done sponce frigestant.'

in the exchange. 'I also think', Cecil wrote, that his rheumatic head 'received ... [its] imperfect [humour] from a stomach [that was] not fully digesting the food received.'4° Cecil's curiosity about his body was never completely satiated by advice from medical practitioners. Instead, medical advice engendered Cecil's greater curiosity about how his body was responding to therapeutic regimes and how his own perceptions confirmed or challenged professional assessments of his bodily processes.

The power of experience in the culture of therapeutics

Cecil's curiosity about his body was thus shaped by a combination of medical counsel and first-hand experiences. Subjective accounts of patient experiences while under a therapeutic regime provide important insights into how curiosity features in the culture of therapeutics. Many accounts of illness survive from the early modern period, some recorded in letters, others in journals and family papers. They range from a few lines jotted down by the dying to much lengthier and more reflective records. Not surprisingly, these records privilege literate and leisured men and women's experiences over illiterate, artisanal or labouring populations.⁴¹ By contrast, the proceedings of corporate bodies such as London's College of Physicians and the Barber-Surgeons' Company yield insights into the experiences of more ordinary patients, though in a form that institutionally mediated patients' direct first-hand accounts. In both types of evidence – first-hand accounts and mediated accounts – what emerges from the records is a well-developed curiosity among patients about the ways in which their bodies experienced both illness and medical therapies. Cecil was far from alone in his engagement with his inner bodily processes; his curiosity was shared by much of the population.

In the records of London's College of Physicians, for example, ordinary men and women with no formal medical training and limited literacy criticised therapeutic regimes and the practitioners who prescribed them. While the goal of such admissions was to seek retribution against an unsatisfactory practitioner, these records can help to illuminate how illness was perceived,

⁴⁰ BL, MS Lansdowne 103/72 (May 1591): 'I hope to heare fro[m] you to have so[m]e thyng of your op[er]ation, to strengthe[n] me afor ye next wynter ageynst my old enemy the Gowt, wc is rather fedd, by a cold humor than a hott, & principally by a Rhewmatyck head, wt I also thynk receaveth his imp[er]fection fro[m] a stomak, not fully digesty[n]g ye foode received.'

For more on patient narratives of illness and their place in medical history, see R. Porter, 'The Patient's View: Doing Medical History from Below', Theory and Society, 14 (1985), 175–98; B. Duden, The Woman Beneath the Skin: A Doctor's Patients in Eighteenth-Century Germany (Cambridge, MA, 1991); M. E. Fissell, 'The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine' in R. French and A. Wear (eds), British Medicine in an Age of Reform (London, 1991), 92–109.

as well as how medical treatment was assessed by patients. In May of 1598, for example, Juliana Sculls accused a well-known empiric, Leonard Poe, of killing her husband.⁴² As part of the testimony, Sculls accused Poe of dosing her husband with a brown medicine, which he took throughout the night. At dawn, Mr Sculls reported to Poe's house for further assessment. Poe took Sculls's pulse, and said 'he was not sick at the heart, but that he had taken a great heat and a cold upon it, which lay at his back.' Juliana Sculls reported that Poe gave her husband another medicine, 'not like the other', which was also administered overnight. Poe claimed that the medicine should open up the patient's body with three or four vomits, and just as many stools, after which he could take posset drinks. Sculls charged that her husband had passed the anticipated number of stools as a result of the medicine, but that after vomiting five or six times he had died later that morning.⁴³

Here we move from collaboration between doctor and patient, as seen in the medical counsels, to accounts of the therapies themselves – the central experience of the culture of therapeutics. Both the culture of therapeutics and the culture of dissection involved opening the body – in the culture of therapeutics, by administering purges or bleeding the patient. In the early modern period, purges by enema or clyster, and purges by vomiting or casting, were therapeutically ubiquitous, as was bleeding. The fondness for purging stemmed partly from the conviction that a good medicine wrought strong, manifest and tangible effects. 'Feeling better' was often a distant therapeutic goal for early modern patients, one that could only be achieved after extensive and unpleasant evacuative techniques were employed. First, the early modern patient wanted to see tangible evidence that evil humours had been expelled from the body. And matter that was expelled from the body's interior recesses deserved careful attention – be it blood, vomit or stools. Patients curious about the by-products of enemas and stools often became alarmed when the quantity of the materials was unexpectedly great. When barber-surgeon Nicholas Kelway treated a London tailor with a purgative that included the powerful laxative senna as well as mercury, the results alarmed the patient's wife. Her husband, she reported, 'vomited to such an extent that his basin became so full that it could not be rinsed out and kept dry'.44 Additional symptoms, including bad breath, a swollen tongue, loose teeth and excess

⁴² A discussion of Poe's activities at court and his interactions with the College of Physicians can be found in F. Dawbarn, 'Patronage and Power: the College of Physicians and the Jacobean Court', *British Journal for the History of Science*, 31 (1998), 1–19.

⁴³ College of Physicians, London, *Annals* 2:131a–b.

⁴⁴ College of Physicians, London, *Annals* 2:118b. Pelling discusses the attention to excess purgation in cases brought before the College in *Medical Conflicts*, and points out that this was a significant way to distinguish illicit medicine from licit. Pelling (with White), *Medical Conflicts*, 292–5. This interpretation, focusing as it does on institutional concerns, does not rule out a possible role for curiosity in the proceedings.

saliva, convinced the woman that the medicine given to her husband had crossed the boundary between efficacy and danger.

The culture of therapeutics exhibits a spectrum of curiosity about the body's interior substances and processes. The cases brought before the College of Physicians represent a middling response to the therapeutic experience: while revealing details about the body's responses to illness and medicine, they were not exhaustive or first-person accounts. Some patients were content to catalogue how and when they ingested purges, but did not examine the quality or the quantity of what was produced. Others examined their body's responses to strong purging therapies with more curiosity. Francis Bacon, who so elegantly and compactly linked the dictum nosce teipsum to health, left copious accounts of his medical experiences. Bacon, like William Cecil, was plagued with illness throughout his life. One of his surviving notebooks, from the summer of 1608, detailed his inquiries into the processes of his own body and his experiences with therapeutics over a period of several days.⁴⁵ Bacon focused on purges – both vomits and enemas – taken to treat melancholy, as well as pain in his chest and lungs. Any interest in feeling better played a distinctly secondary role to Bacon's curiosity about why his inner body responded to some regimes and not others.

Bacon began his therapeutic regime with an enema to open and loosen his body. Bacon was curious about the unusual effects of the enema, for it failed to produce 'that lightness and cooling in my sides' he usually felt; and soon afterwards he was plagued with symptoms of melancholy, a dark outlook on life and a desire to 'groan and sigh.'46 These were all clear signs that 'a malign humor [had been] stirred' somewhere inside him, but still had not been expelled. So Bacon followed the enema with three of his own specially concocted pills made up of various 'correcting' medicines to resolve the bad humour. Within a few hours, without pain or vomiting, Bacon expelled his evil humour in the close-stool. Bacon used this occasion to speculate further on his body's propensity towards melancholy and how his body had responded to therapeutic purges in the past. He remembered being at his home at Gorhambury one month earlier, when he 'was taken much with my symptoms of melancholy'. Though the symptoms lasted for over 24 hours, the melancholic humour 'cleared and went from me without purge and I turned light and [was in good health].'47 Purges, Bacon concluded, were a tricky therapy demanding careful regimentation. Bacon compared and contrasted his successes with purging therapies, and decided the key was not what was given, but when. Bedtime enemas, Bacon realised upon reflection, 'work upon

⁴⁵ BL, MS Add. 27, 278. The period covered by the notebook is 25 July to 29 July 1608.

⁴⁶ BL, MS Add. 27, 278, 7°.

⁴⁷ BL, MS Add. 27, 278, 9°. The actual phrasing of this passage is 'it cleared and went from me without purge and I turned lighte and disposed of my self.'

viscous humours more than at other times', but they increased humours in the head. Two enemas taken at intervals in the late afternoon and bedtime 'agree well, for one stirs the more viscous humour and the other carries it away.' Taking his favourite 'cooling clyster' daily for four or five days 'without intermission' Bacon deemed a 'good success', despite the fact that it stirred the humour, and took away 'the moisture of adjacent humours' while leaving 'the viscous humours' in his body's inner passages.⁴⁸

Bacon's account of his experiences with therapeutic regimes suggested a mapping of the body and its processes comparable to William Cecil's. But Bacon's self-study demonstrates more clearly the intense curiosity of a patient concerning his own symptoms and therapies. This interest in self-study makes Bacon, and others like him who were curious about their body's responses to illness and therapy, part of the evolution of standards of objectivity, trustworthiness and credibility in seventeenth-century knowledge claims – especially those cases where 'natural philosophers proffered their own bodies in evidence.' Bacon's notes also convey how complicated it could be for an early modern patient – even one so highly educated as he – to come to terms with so many variables at once. The humours, bodily functions, location of symptoms, intensity of symptoms and the therapy's administration – all had to be assessed if a better understanding of the body's interior were to be achieved. The vehicle for that assessment, and the culminating practice in the culture of therapeutics, was the medical receipt book.

Anatomising therapeutic experiences: curiosity and the receipt book

Nowhere is the culture of therapeutics more evident than in the voluminous manuscript collections of medical receipts that survive from the early modern

⁴⁸ BL, MS Add. 27, 278, 26^r. 'The taking of a glyster bedwards putteth down more swiftly, and seameth to woork upon viscous humors more then at other tymes, but it filleth ye head; It is the freest for business/2 glisters the one at 4 of clock the other bedward agree well, for that the one styrreth the more viscous humor and the other carrieth it away. / The contynuance of my familiar cooling glyster 4 or 5 daies without intermission I find to be of good success. But yet for the tyme it maketh me afterwards ymediately fynd a greate heat of body and distast of symptome (The like doth any contynued diett or just purging) wch I iudg doth arrise bycause the [?]st humor is styrrred but sticketh close, and bycause the moysture of humors adjacent beinge washed away it rayneth ye more. And bycause someof the viscous humors styrred but not drawn away rest more in ye passages.'

⁴⁹ S. Schaffer, 'Self Evidence' in J. Chandler, A. I. Davidson and H. Harootunian (eds), *Questions of Evidence: Proof, Practice, and Persuasion Across the Disciplines* (Chicago, 1994), 56–91 at 58. For more on seventeenth-century claims of disembodied knowledge and objectivity, see P. Smith, 'Science and Taste: Painting, Passions, and the New Philosophy in Seventeenth-Century Leiden', *Isis*, 90 (1999), 421–61; S. Shapin, 'The Philosopher and the Chicken: On the Dietetics of Disembodied Knowledge' in C. Lawrence and S. Shapin (eds), *Science Incarnate: Historical Embodiments of Natural Knowledge* (Chicago, 1998), 21–50.

period. Though dissection accounts and autopsy reports from this period in England are few and far between, libraries and archives are full of this genre of medical writing. Receipt books represent an important artefact of the culture of therapeutics in which many different accounts of illness, as well as many different therapeutic prescriptions and regimes, are often juxtaposed in a single text.⁵⁰ This juxtaposition of experiences enabled the curious English man or woman to compare and contrast possible remedies, to assess how their responses to therapy might differ from those around them, and to seek medical counsel with fresh information. The medical receipt books illuminate the production of a generalised sense of the body that stems directly from the application of therapeutics and the assessment of their effects. While the culture of dissection produced a generalised sense of the body from a relatively anonymous corpse, the culture of therapeutics produced this same information from the compilation of hundreds of examples of medical therapies.

As compendia of medical knowledge, the receipt book both reflected the results of inquiry into the body and fostered further intellectual curiosity about the body. The medical receipt book gave early modern English men and women both a space and a method for delineating – or anatomising, in early modern language – their medical experiences. Religious ideas could be 'anatomised' as readily as a human corpse, and in the case of the receipt books, subjective medical experiences were anatomised into compact accounts of remedies, their administration and their effectiveness. While the medical counsels and personal reactions from which these anatomised therapeutic skeletons were drawn have been lost, except in cases like Cecil and Bacon, the receipt books provide an excellent vantage point from which to reassess Cecil's consultations or Bacon's diary of experiences. Looking back through the lens of the receipt book sharpens our sense that Cecil and Bacon were engaged in something more than the pursuit of health: they were expressing their curiosity about the body and how it worked.

Books of medicinal preparations and procedures fell into two groups: medical formularies kept by medical practitioners including apothecaries, surgeons and physicians, sometimes in conjunction with a medical casebook; and receipt books kept by those without formal medical training who were nevertheless eager to keep at the ready a collection of guidance and remedies

The Recipe books often contain unattributed and attributed therapies, some of the latter drawn from well-known physicians' receipts or 'bills' that were sometimes popularised by the apothecaries. Some attributed recipes refer to medicines produced by friends or family members. See Pelling (with Frances White), *Medical Conflicts*, 109–11. Two important works on medical receipts are J. Stine, 'Opening Closets: The Discovery of Household Medicine in Early Modern England', unpublished Ph.D. thesis (Stanford, 1996) and Wear, *Knowledge and Practice*, 46–103. On the role of women in collecting receipt books, see L. Hunter, 'Women and Domestic Medicine: Lady Experimenters 1570–1620' in L. Hunter and S. Hutton (eds), *Women, Science and Medicine* 1500–1700: *Mothers and Sisters of the Royal Society* (Sutton, 1997), and Pollock, *With Faith and Physic*.

that would help them to manage their own fractious bodies and those of their families and friends. My reading of these manuscripts suggests important differences between professional formularies and patient receipt books, differences that underscore the ways in which English men and women engaged in subjective reflections about the body. Specifically, the formularies gathered by medical practitioners tend to be more precise in terms of measurement, less detailed and specific with regards to the effects that a medicine might have upon the patient's body, and far more likely to link a receipt to a particular patient if not to a particular physician. On a page in his casebook or diary of practice, for example, physician Stephen Bredwell recorded specifics about Mrs Nicolson's medical complaints (a post-partem fever accompanied by constipation and a cessation of the menses), gave the formula for two linked prescriptions (the first for a decoction, the second for a clyster), complete with measurements down to the scruple and gram for various ingredients, and indicated how to time the administration of the clyster.⁵¹ Though Bredwell included detailed accounts of the medicines prescribed for ten individuals (including himself) on this single page, the physician included no details about the effects that the medicines might have, the patients' reactions to the medicines, or whether any additional measures needed to be taken, such as bed-rest, exercise or baths.

While Bredwell's records are anatomies of medical experiences, they are highly schematic. Medical receipt books kept by men and women who were not occupationally medical practitioners are far more graphic in their treatment of the diseases in question, offer more details in their descriptions of the therapeutic regime, and reveal more curiosity about whether or not the therapy worked. One of the most active collectors of medical receipts and advice from the early modern period was Sir Hugh Plat. London-born and Cambridge-educated, Plat spent most of his life in the thriving capital city where he interviewed everyone from musk-melon sellers to prominent physicians to gather volumes of cures which he tested on himself and his family. Plat was intensely curious about therapeutic effectiveness and even undertook a rudimentary drug trial of his own plague medicine during the 1593 epidemic. His notebooks accounted for the distribution of 461 of his medicinal lozenges, including sixty to the Queen's Privy Council, thirty to an apothecary for sale in his shop, and forty-five to Charles Howard, the Lord High Admiral of England. The Bishop of Worcester purchased fifty lozenges from Plat, and a Justice of the Peace for Middlesex 'made one speciall triall [of the lozenges] in the p[ar]ish of St Marie Abchurch where hee himself dwelled'.52 Plat reported that in the nine houses which were given the drug

⁵¹ Stephen Bredwell, 'Diary of Practice', BL, MS Sloane 275, 81^r.

⁵² BL, MS Sloane 2209, 22^r–25^v.

resided thirty-three people, 'all [of which] were preserved from the plague, to the great contentm[en]t of ye LLs of the Counsell whoe sent ... to bee fully informed of the report.'53

Plat's curiosity about therapeutic effectiveness could be sated only through the compilation of thousands of medical receipts. In most cases, Plat noted that the therapy was tested and proven, and gave the name of the man or woman who had enjoyed therapeutic success. Ideally, however, Plat liked to put himself or a member of his family on the regime and observe its effects first-hand. In 1588, Plat was troubled with an aching in his knee joint brought on by exposure to extreme cold. After consulting with surgeon Matthew Ken about possible treatments, he 'proved good' the following remedy: 'anoynt the same [knee] by the fier a good while wth unguentu[m] ... and after lapp the membre very warme.'54 Other receipts show that his wife was put on a therapeutic diet, suggested by a friend, to cure green sickness, and the regimen proved a great success.55 Plat's household staff and neighbours benefited from Plat's medical attentions, but were also scrutinised by him so as to provide experiences that could be anatomised in his receipt books.

Plat was unstinting in his praise of those practitioners who provided effective treatments, like Ken and the Dutch apothecary James Garret. Garret, internationally renowned as a naturalist as well as a superb maker of medicines, often appears in the pages of Plat's receipt books, dispensing advice on pruning fruit trees as well as making strong and safe laudanum. In the spring of 1596, Plat purchased from Garret a purgative medicine prepared from mercury and antimony. From the vantage point of modern medicine one has to question Plat's judgement that it was 'a very safe and easie vomitt', even if Garrett had administered the remedy to his own young child. In the receipt, unspecified amounts of mercury and antimony were combined with ginger, conserve of roses, and apple then formed into a pill that was downed with buttered beer to facilitate vomiting. Plat made careful note of the amount of the remedy appropriate to children as opposed to a young man, and cautioned that if the patient did not vomit within half an hour of ingesting the substance, more buttered beer was required. 'I gave this to my

⁵³ BL, MS Sloane 2209, 22^r.

⁵⁴ BL, MS Sloane 2209, 4^{r-v}.

⁵⁵ BL, MS Sloane 2209, 8°.

⁵⁶ For further information on Garret and his place among the international community of naturalists as well as in London, see D. E. Harkness, 'Tulips, Maps, and Spiders: the Cole-Ortelius-Lobel Family and the Practice of Natural Philosophy in Early Modern London' in R. Vigne and C. Littleton (eds), From Strangers to Citizens: Foreigners and the Metropolis, 1500–1800 (London and Sussex, 2001) and '"Strange" Ideas and "English" Knowledge: Natural Science Exchange in Early Modern London' in P. Findlen and P. Smith (eds), Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe (London, 2002). Garret and his natural history community in London occupy a chapter of D. E. Harkness, The Jewel House of Art and Nature: Elizabethan London and the Social Foundations of the Scientific Revolution (forthcoming, Yale 2007).

son Richard', Plat explained, 'and it wrought 10 vomitts and 2 stooles at oune taking.' The day after Richard Plat took this marvellously effective purgative, he was dosed with his father's recipe for 'mastick pills appropriate for the rheume.' This medicine, too, produced quantifiably good results: ten stools, as Plat happily reported.⁵⁷

Conclusion

Plat is representative of the hundreds of English men and women who kept medical receipt books in the early modern period. The culture of therapeutics, of which these receipt books are emblematic, expressed intense curiosity about the body with remarkably little recourse to developments in anatomy taking place on the continent. Though my interpretation of the evidence presented here is suggestive more than definitive, it does suggest that though anatomies were being performed in England, they did not make the same intellectual impact as they did in Padua or Leiden. Francis Bacon, in *The Advancement of Learning*, shows downright scorn for the practice of dissection:

In the inquirie which is made by *Anatomie*, I finde much deficiencie: for they enquire of the *Parts*, and their *Substances*, *Figures*, and *Collocations*; But they enquire not of the *Diversities of the Parts*; the *Secrecies of the Passages*; and the *seats or neastling of the humours*.⁵⁸

Though Jonathan Sawday suggests that this passage reflects Bacon's ignorance of continental anatomy, I would suggest an alternative reading: Bacon did know about European anatomical developments, but he did not feel that anatomy could delve far enough into the secrets of the interior body, nor did he feel that the study of a generalised corpse was particular enough to augment medical understanding.

The most difficult question – and the one that I cannot yet answer – is why the English were content to exercise their curiosity about the body through the culture of therapeutics while turning away from the culture of dissection. Did Protestantism, with its emphasis on self-study and self-knowledge, give theological justification to curiosity that could not be gathered by eyewitnessing an anatomy? Did the English have a different attitude towards the reliability of the sense of sight in matters of anatomical knowledge, preferring instead to use all five senses to evaluate the body's interior as well as its exterior? And how prevalent was Bacon's scepticism that the generalised anatomy of a single corpse could support the highly particularised understanding of the human body that was implicit in Galenic, humoural medicine? Late sixteenth- and

⁵⁷ BL, MS Sloane 2209, 9^r.

⁵⁸ F. Bacon, The Advancement of Learning, ed. M. Kiernan (Oxford, 2000), 99.

early seventeenth-century men and women appear to have been reluctant to embrace a way of knowing the body that offered little in the way of therapeutic rewards. As Andrea Carlino and David Harley have shown, one of the great weaknesses of dissection as an epistemological strategy was that the promise of therapeutic benefits failed to materialise from the procedures.⁵⁹ The English appear to have been more sceptical from the outset that a better knowledge of the body's anatomy and interior spaces would yield better and more effective medicines.

Today we can visit the anatomy theatre at Padua, view the anatomical canvases by Rembrandt, and study Vesalius' woodcut illustrations of the body. We feel that we are the heirs to the culture of dissection these tangible artefacts represent. Tucked away in library shelves and hidden in archives, however, are the artefacts for a different culture of curiosity about the body – the culture of therapeutics. Though less familiar to us, it was this culture, constructed by medical advice and personal experience and then anatomised into receipt books, that best exemplifies sixteenth- and early seventeenth-century English curiosity about the body.

⁵⁹ Carlino, *Books of the Body*, 5 and D. N. Harley, 'Political Post-Mortems and Morbid Anatomy in Seventeenth-Century England', *Social History of Medicine*, 7 (1994), 1–28.

Back from wonderland: Jean Antoine Nollet's Italian tour (1749)

Paola Bertucci

In the eyes of foreign travellers, the Italian peninsula seemed like an enormous cabinet of curiosities in which naturalia and artificialia voluptuously offered themselves to both senses and intellect. Renaissance art, Etruscan, Greek and Roman ruins, natural landscapes and active volcanoes alternated in quick succession before the enraptured eyes of Grand Tour travellers. If wonder was the passion excited by the extraordinary, Italy was a country where extraordinary views and extraordinary customs so abounded that the whole peninsula seemed to be a wonderland. Nature, art and social customs each helped to take foreign visitors by surprise. In Italy, everything was wonderful, from Michelangelo's sculptures to the ruins of Ercolano, from Raphael's paintings to Farinelli's voice. From ambassadors, or Italian correspondents, foreign academies of science often received news of the 'curious' phenomena occurring in the peninsula, while popular magazines also contributed to the literary construction of Italy as wonderland. In the south, Mount Etna and Mount Vesuvius offered unpredictable, marvellous performances whose details, once published, entertained naturalists abroad, and inspired painters with visions of eruptions they had never seen. The operations of nature seemed to escape order almost as often as Italians themselves ignored the rules, tacit or explicit, of 'decorous' social behaviour. In the country of Casanova and Don Giovanni, the ladies too, dallying with their cicisbeo on public occasions, enjoyed a degree of liberty verging on libertinism.1

I am grateful to Giuliano Pancaldi for attracting my attention to Nollet's unpublished travel diary. I wish to thank also Roger Hahn and John Heilbron who made the typescript of the diary available to me during the month I spent at the Office for the History of Science and Technology at Berkeley in 2004. For useful comments or suggestions I am grateful to: Laurence Brockliss, Marta Cavazza, Robert Evans, Paula Findlen, Oliver Hochadel, Stephen Johnston, Alex Marr, Mary Terrall.

¹ Cicisbeo was a (usually) Platonic lover of a married woman. Their relationship was public, not clandestine. On cicisbeism, see R. Bezzocchi, 'Cicisbei. La morale italiana', Storica, 9 (1997), 62–90.

And Italian women surprised foreign visitors in other ways. Whether thought of as monstrous or wonderful, a woman's affiliation to literary or scientific academies was by no means unknown. Since 1678, when the Venetian Elena Cornaro Piscopia was awarded a degree in philosophy from the University of Padua, several other Italian women had tried to make their way in the academic world. The news of a female graduate spread quickly, and attracted the attention of the media of the time. Regarded as 'wonders of their sex', the *dottoresse* were celebrated in poems, paintings and various reports, arousing a deep interest in foreign travellers who made a point of visiting them.² Cornaro Piscopia's tomb in Padua was one of the recommended sights in Maximilièn Misson's best-selling travel guide *Voyage d'Italie* (first edition: La Haye, 1691).³

Italy was also the country of miracles and prodigies of every kind. The kingdom of Naples, in particular, was a horn of plenty for them. In Naples Cathedral, San Gennaro's blood liquefied twice a year, while that of John the Baptist liquefied in the church of Santa Maria Donna Romita (again in Naples).4 Frantic rhythmical dances released the tarantolati from uncontrolled convulsions in Apulia, while in the Grotta del Cane, near Agnano, a mysterious, mephitic gas silently killed any living creature breathing near the ground. In the volcanic area around Vesuvius, whose crater could be admired after a demanding climb, visitors could enjoy the Solfatara's boiling sand and, not far from there, a pit where water bubbled vigorously at lukewarm temperature. Italy's marvels were well known to Grand Tour travellers. Travel literature, word of mouth and academic reports mapped wonders and prodigies not to be missed during one's journey. They also constructed 'Italy' (which, de facto, was a collection of several states variously ruled) as one nation, and its inhabitants, the Italians, as lovers of superlatives, infatuated with their country beyond measure. 'We have already seen I do not know how many presumed eighth wonders of the world', wrote Misson from Vicenza, warning his readers about Italians' ambagious style.⁵ Italy, in this kind of literature, was

² On the Italian 'filosofesse', see M. Cavazza, 'Les femmes à l'Académie: le cas de Bologne' in D.-O. Hurel and G. Laudin (eds), Académies et Sociétés Savantes en Europe (1650–1800) (Paris, 2000), 161–75; and 'Between Modesty and Spectacle: Women and Science in Eighteenth-Century Italy' in P. Findlen and C. M. Sama (eds), Italy's Eighteenth Century: Gender and Culture in the Age of Grand Tour (forthcoming); P. Findlen, 'Science as a Career in Enlightenment Italy: The Strategies of Laura Bassi', Isis, 84 (2000), 440–69; 'Translating the New Science: Women and the Circulation of Knowledge in Enlightenment Italy', Configurations, 2 (1995), 167–206; 'A Forgotten Newtonian: Women and Science in Italian Provinces' in W. Clark, J. Golinski, S. Schaffer (eds), The Sciences in Enlightened Europe (Chicago and London, 1999), 313–49; and 'Becoming a Scientist: Gender and Knowledge in Eighteenth-Century Italy', Science in Context, 16 (2003), 59–87.

³ Maximilien Misson, Voyage d'Italie, 4 vols (5th edn, Utrecht, 1722), iii, 172.

⁴ Misson, Voyage, iii, 34.

⁵ Misson, *Voyage*, i, 171. 'Nous avons déjà veu je ne sçay [sic] combien de prétendûes huitiémes Merveilles du Monde.'

also homeland to credulity, superstition, beauty, charlatanism and a glorious past: a vast cabinet of curiosities to be visited following the itineraries of best-selling travel diaries, updated inventories of the wonders to be found in the open-air *Wunderkammern* south of the Alps.⁶

Jean Antoine Nollet (1700–1770) – at the time of his Italian tour a respected member of the Académie des Sciences in Paris, a fellow of the Royal Society of London, and a highly reputed experimental philosopher – imbibed this cultural stereotype both from his work at the Académie and from his citizenship of the Republic of Letters. But his attitude towards the abundance of 'those marvels of nature and art ... that everybody knows, either for having seen them, or for having read books that talk about them' was a sceptical one. It was with the explicit intention to debunk what he sarcastically regarded as 'miracles' inexplicably reserved to Italian soil, that in 1749 he set out on his tour south of the Alps. His Italian journey stands as an exception to what Lorraine Daston and Katherine Park argue in *Wonders and the Order of Nature*:

Enlightenment savants did not embark on anything like a thorough program to test empirically the strange facts collected so assiduously by their seventeenth-century predecessors or to offer natural explanations for them. ... Leading Enlightenment intellectuals did not so much debunk marvels as ignore them.⁹

Before and after his departure Nollet made of the Italian 'love of the marvellous' the target of a campaign. Following Nollet in his tour, I argue that his relationship with the culture of curiosity and wonder unfolded along a double register: on the one hand, he dallied with the contemporary rhetoric that associated the 'love of the marvellous' with plebeian credulity and superstition; on the other, his involvement in the business of wonders and natural curiosities (of which electrical experimental philosophy was a glowing example), and his status as an expert in the field, facilitated his admission to those élitist microcosms, the numerous courts south of the Alps. His whole career gravitated around wonder and curiosity. Whether with a complacent or a belligerent attitude, he knew very well that in the process of moulding one's career as a natural philosopher, wonders could not be ignored.

⁶ On the Italian Grand Tour, see A. Wilton and I. Bignamini (eds), *Grand Tour. Il fascino dell'Italia nel XVIII secolo* (Milan, 1997); C. De Seta, 'L'Italia nello specchio del Grand Tour' in *Storia d'Italia, Annali V: Il paesaggio* (Turin, 1982); G. Mercenaro and P. Boragina (eds), *Viaggio in Italia. Un corteo magico dal Cinquecento al Novecento* (Milan, 2001).

⁷ J. A. Nollet, 'Expériences et observations en différens endroits d'Italie' in Mémoires de l'Académie des Sciences de Paris (1749), 444–88 at 444.

⁸ P. Bertucci, 'Sparking Controversy: Jean Antoine Nollet and Medical Electricity South of the Alps', Nuncius, 20 (2005), 153–87. I. Benguigui, Théories électriques du XVIIIe siècle. Correspondence entre l'abbé Nollet (1700–1770) et le physicien genevois Jean Jallabert (1712–1768) (Geneva, 1984), 167.

⁹ L. Daston and K. Park, Wonders and the Order of Nature, 1150–1750 (New York, 2001), ch. 8.

The wonderful career of the abbé Nollet

[l'abbé Nollet] me mande qu'on ne voit à sa porte que des carrosses de duchesses, de pairs et de jolie femmes. Voilà donc la bonne philosophie qui va faire fortune à Paris. Dieu veuille que cela dure!¹⁰

The career of Jean Antoine Nollet in the world of experimental philosophy was a startling one. A theology graduate from the University of Paris in 1724, he was never ordained, though he always retained the honorific title of 'abbé'. In the course of a few decades, he metamorphosed himself into a maker of philosophical instruments, a skilled designer of experiments, a charming public lecturer and demonstrator, a tutor to aristocratic families, an authoritative author of natural philosophical texts, and a respected member of the Académie des Sciences. From the beginning of his working life, everywhere he went, Nollet was particularly able to identify what could help him enhance his credentials and achieve higher social status. With the same careful dexterity that he employed in the making of his fine instruments, he meticulously carved out a career for himself that upgraded his status from that of an artisan to that of a celebrated natural philosopher who, being the tutor to the Dauphin de France, resided at Versailles.

Nollet entered the world of philosophical instrument-making with the aim of seeking patronage. As early as 1728 he dedicated a pair of globes to the Duchess of Maine, the aunt of the Comte de Condé, who provided patronage to the Societé des Arts. This was a corporation of craftsmen, savants and artists, and attending it gave Nollet (elected a member in the same year) the opportunity to circulate amongst important people in both the business world and that of natural philosophy.¹¹

With their black varnish, shining brass, red finish and oriental-like golden flowers, Nollet's instruments were well suited to the rococo rooms of the French aristocracy. Artificial eyes, microscopes and telescopes, together with water, vacuum, lifting, combustion and compression pumps, as well as electrical machines and magic lanterns, all captivated the imagination of his spectators by artificially recreating the natural world. The artificial eye, an instrument he made to show how images are formed on the retina, and to simulate the effects of myopia and farsightedness, helped them understand the mysteries

¹⁰ Emile du Châtelet to Algarotti, 20 May (no year given, though I believe it dates from 1736), in F. Algarotti, *Opere*, 17 vols (Venice, 1794), i, 16.

On Nollet's movements in the world of craftsmanship and the *Societé des Arts*, see A. Turner, 'Sciences, Arts and Improvement: Jean Antoine Nollet, from Craftsman to Savant' in L. Pyenson and J.-F. Gauvin (eds), *The Art of Teaching Physics: The Eighteenth-Century Demonstration Apparatus of Jean Antoine Nollet* (Sillery, QC, 2002), 29–46.

of correct and poor vision, whereas elegant philosophical machines, operated by servants who turned their big wooden wheels, displayed the effects of centrifugal forces or the mysterious, livid light of 'electric fire'. A cabinet of his instruments enclosed the immense powers of nature in a cupboard, giving the owner the powerful feeling of 'possessing nature' that paralleled that of Renaissance collectors of wonderful and monstrous rarities. 12 On the shelves of their cabinets, however, the philosophical instruments embodied experimental philosophy's new, manipulative approach to the natural world. Through them, experimental demonstrators and their spectators could not only glimpse the mechanisms of nature, they could also force nature to display its hidden properties or powers. Philosophical instruments created artificial situations in which experimenters, boldly erasing the border between art and nature, could formulate questions and find the answers. Compression pumps were tools to investigate the effects of the density of air on the propagation of sound; air pumps showed that lack of air made birds and little animals suffocate; and electrical machines forced the pervasive, but often invisible, 'electric fire' to manifest itself. The artificial reconstruction of nature through philosophical instruments was irresistible for the curiosity of the upper classes, and experimental demonstrators, like Nollet, built their fortunes upon it.¹³

By the first half of the 1730s Nollet was already a name. In 1733 he became Réaumur's assistant at the Académie des Sciences, and five years later, after travelling to Holland and England, where he met the most important experimental demonstrators of his time, he replaced Buffon as *adjoint-mechanicien* for the Académie. In 1744 he became tutor to the Dauphin de France and moved to Versailles. Meanwhile, his atelier of philosophical instruments achieved international renown: whole cabinets of instruments were bought by courts, universities, academies and individuals all over Europe. At a time when natural philosophy was highly profitable, Nollet made a business out of the upper classes' demand for entertainment and novelty. Voltaire bought a physics cabinet worth 10,000 *livres* from him, and the instruments he sold at Versailles brought in so much money that he could not help boasting of it to his friend and correspondent Jean Jallabert.¹⁴

On which, see P. Findlen, Possessing Nature: Museums, Collecting and Scientific Culture in Early Modern Italy (Berkeley, 1994).

¹³ See S. Schaffer, 'Natural philosophy and public spectacle in the eighteenth century', *History of Science*, 21 (1983), 1–43; L. Stewart, *The Rise of Public Science: Rhetoric, Technology, and Natural Philosophy in Newtonian Britain*, 1660–1750 (Cambridge, 1992); G. Sutton, *Science for a Polite Society* (Boulder, 1995).

There is no biography of Nollet, with the exception of the inaccurate *L'abbé Nollet*. *Un physicien au siècle des Lumières* by J. Torlais (Paris, 1954). On Nollet's earlier activities as an instrument-maker, see J.-F. Gauvin, 'Eighteenth-Century Entrepreneur: Excerpts from the Correspondence between Jean Antoine Nollet, Etienne-François Dutour, and Jean Jallabert, 1739–1768' in Pyenson and Gauvin, *The Art of Teaching Physics*. See also Turner, 'Sciences, Arts and Improvement'.

His popularity as a demonstrator of experiments and as a fashionable tutor spread all over Europe, and as early as 1739 the King of Piedmont invited him to take up residence at the Royal Palace in Turin to look after the prince's education. During the six months of his stay, Nollet was busy networking with the professors of the University, who ordered a whole cabinet of his physics instruments, paid for by the King.¹⁵

Nollet's interest in electrical experiments dated back to the early 1740s. The 'science of wonders', as electricity was commonly referred to during the eighteenth century, identified a field of experimental research that was still largely unexplored and that could be highly spectacular. His repertoire of electrical experiments was outstanding, and employed the most recent discoveries in the field. Conscious of the fact that experimental demonstrations, with a few adjustments, could easily be transformed into marvellous performances, Nollet used the Leyden jar, a sort of cylindrical capacitor recently introduced in electrical experiments, to make hundreds of soldiers – holding hands – jump simultaneously as they experienced the electric shock it generated. Their surprised reaction, in the royal gardens of Versailles, guaranteed the King's amusement and his praise of Nollet. Similarly, the sudden appearance of livid electric sparks in darkened salons was variously exploited by public experimenters, who engineered demonstrations on an increasingly spectacular scale (Fig. 10.1). Writing his first essay on the subject in 1746, Nollet was certainly aware that electricity was 'the most fashionable branch of Physics' and that not only did it 'attract the attention of the experts, it also attracts ... amateurs of all conditions'. 16 Furthermore, the sexual allusions implicit in electric and magnetic experiments well suited the tastes of the beaumonde, as exemplified in the anonymous poem The Semi-Globes, or Electrical Orbs:

Each charm, by turns, reveal'd, must fuel prove, To feed the gentle, lambent flame of love, But most the beauties of the Bosom please, Nor any female charm can vie with these! The tempting seat of all that's sweet and fair, For Nature's Electricity is there!¹⁷

Electricity provided valuable opportunities to find one's way in the learned world of the Republic of Letters, and to consolidate (or start up) one's business

Museo di Fisica dell'Università, Turin. Catalogo del gabinetto di fisica (MSS). I am grateful to Marco Ciardi who gave me a copy of the catalogue.

Journal des Trévoux, IV (1746), 2074. '[l'électricité] est la partie de Physique le plus à la mode aujourd'hui. Elle fixe l'attention, non seulment des gens du métier, mais même de ceux qu'on peut nommer le vulgaire en fait de Sciences, elle trouve des amateurs dans toutes les conditions.'

¹⁷ [anonymous], The Semi-Globes, or Electrical Orbs. A Poem (London, 1787), 4. On eighteenth-century magnetism, see P. Fara, Sympathetic Attractions: Magnetic Practices, Beliefs and Symbolism in Eighteenth-Century England (Princeton, 1996).



Nollet performing the 'flying boy' experiment. From Jean Antoine Nollet, Essai sur l'electricité des corps (Paris, 1746). Reproduced by kind permission of the Bakken Museum and Library for Electricity in Life, Minneapolis.

as a public demonstrator or instrument-maker. Nollet moved successfully between the two worlds with consummate ease. His project of replicating and ordering all the electrical experiments under his own personal supervision was endorsed by the Académie des Sciences,¹⁸ while his *système Nollet* (a vaguely Cartesian-inspired, comprehensive explanation of the nature and role of 'electric fire' in the natural world) was accepted by most of his contemporaries and established him as the most authoritative electrician of the time.¹⁹

Nollet in wonderland

Nollet started to plan his Italian tour in early 1749, prompted by his repeated failure to replicate the experiments carried out by a number of Italian electricians who claimed that electricity could be employed to perform instantaneous cures. The experiments were wonderful indeed. Sealed glass tubes, filled with perfumed substances, when rubbed on their outer surface, became in the hands of the Italians as permeable as sponges. The electric vapours excited by the rubbing made the perfumed particles evaporate through the pores of the glass into the spectators' nostrils. If medicaments were put inside the tubes, patients would be instantaneously cured simply by breathing the electric effluvia. Nollet's failure to replicate the effects described by the Italians prompted him to see the experiments for himself. The French court funded the journey in exchange for secret information on the manufacture of silk in Piedmont and other provinces south of the Alps, which Nollet solicitously provided.²⁰

Nollet left Paris on 27 April 1749. The itinerary of his journey in the Italian peninsula included the most important capitals of Italian culture, past and

¹⁸ Archives de l'Académie des Sciences, Paris, Procès Verbaux, 67 (1748), 486^r–487^r.

¹⁹ J. A. Nollet, Essai sur l'élécricité des corps (Paris, 1746). On Nollet's system of electricity, see J. Heilbron, Electricity in the 17th and 18th Century: A Study of Early Modern Physics (London, 1979), 280–89.

I am currently completing a book on these aspects of Nollet's journey to Italy: *Viaggio nel paese delle meraviglie. Scienze e curiosità nell'Italia del Settecento* (forthcoming). On the medical expeiments see Bertucci, 'Sparking Controversy'; 'The Electrical Body of Knowledge: Philosophy and Medical Electricity in the Mid-Eighteenth Century' in P. Bertucci and G. Pancaldi (eds), *Electric Bodies*, 43–68. It was Grandjean de Fouchy (president of the *Académie*), in his 'Eloge de M. L'Abbé Nollet', published in *Histoire de l'Académie* (1770, 121–36), who stated that the French Court had sent Nollet to Italy in order to gather information on the manufacture of silk. Also in the anonymous 'Precis de la vie et des travaux de M. Nollet, diacre, licencié en theologie de la Faculté de Paris, de l'académie royale des sciences, anonyme', in the *Journal des Trévoux* (1770), at 162, we read: 'Au mois d'avril 1749 la cour l'envoya en Italie pour prendre des connaissance concernant les manufactures des soie.' A quick reference to Nollet's interest in Piedmontese silk manufactories is in C. Poni, 'Standards, Trust and Civil Discourse: Measuring the Thickness and Quality of Silk Thread', *History of Technology*, 23 (2001), 1–16.

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present. Starting from Turin, he travelled to Milan and from there to Venice, via Vicenza, Padua and Verona, then south to Bologna, Florence, Rome and Naples. On his way back from Bologna he went to Genoa via Pisa and Livorno and then headed north to Turin. Although the 'wonderful' electrical experiments mentioned above were, admittedly, the main reasons for him crossing the Alps, they were not the only ones. As his unpublished travel diary and the articles he published in the *Mémoires* of the Académie des Sciences show, the study of medical electricity was only one of his many activities during his nine-month stay. Self-promotion in Italian courts and in the academic world was for him a much more urgent concern. Taking notes of all he saw and of all the people he met, he mapped in his travel diary the content of Italian culture, and where it was to be found. He located private libraries, collections of ancient books and manuscripts, coins and medals, philosophical instruments and rarities of all kinds, which still retained their value both in financial terms and as attractions for prestigious visitors.

Everywhere he was received as a celebrity. He was already well known throughout Europe as the author of popular texts on experimental philosophy and as a fine inventor and designer of philosophical instruments. At the same time, the social context within which he carried out his work (the French court and the Académie des Sciences) enhanced the reputation he had gained by means of instrument-making and authorship. His frequentation of Versailles, in particular, roused the curiosity of aristocrats south of the Alps and opened the doors of exclusive palazzi. While visiting the various Italian states, he met French ambassadors, dined with counts and countesses, was received by princes and princesses, talked to cardinals and professors, was invited as a spectator to the King's baisemain in Naples, and had a private audience with the Pope. When he arrived in Bologna, the vice legate arranged for him to have a coach and a laquais de place, a welcome repeated in various other towns.²¹ His conversation responded perfectly to the expectations of his hosts and hostesses. Natural philosophy was the talk of the day and the new areas of electricity and magnetism were irresistibly attractive to amateurs and philosophers alike. His abilities as an entertaining demonstrator and a skilled educator added to his appeal. For the wealthy amateurs that collected the symbols of natural philosophy, he was the authority who could give an expert evaluation – both in financial and philosophical terms – of their sometimes whimsical purchases. Upon receiving the big magnets he had ordered from England, the King of Piedmont invited Nollet to Court to get his opinion on their value, and a few days later he asked him to build a barometer for his cabinet.22

²¹ Bibliotèque Municipal de Soisson, Soisson, MS 150: Jean Antoine Nollet, *Journal du voyage de Piémont et d'Italie en 1749*, 110^r.

²² Nollet, *Journal*, 58^r and 76^r.

Expertise was an advantageous element for Nollet's business as a philosophical instrument-maker: several amateurs ordered instruments from his Paris workshop, aware that their cabinets would thus acquire a new icon to their enlightened interest in natural philosophy. Their orders were not dictated by specific research agendas, as was the case with the orders placed by universities or academies: an instrument from Nollet's workshop would be a souvenir of their encounter with one of the most highly reputed authorities in natural philosophy. The prince of Tarsia did not even formulate specific requests when he asked Nollet to choose all the instruments appropriate to the completion of his collection, whereas the Cardinal Passionei ordered only a microscope, and left to Nollet the choice between a thermometer or a barometer. Similarly, the marquis of Oncieux entrusted Nollet with the choice of a good microscope from Paris.²³

To the Italians, Nollet was a curiosity to be admired and contended for. His success was largely due to the fascination he exerted as the tutor to the Dauphin de France. The texts of his lectures to the young prince made up his six-volume *Leçons de Physique*, which thrilled readers with the idea they could receive the same education as the son of the French King. And Italian publishers knew that Nollet's books could be best-sellers even south of the Alps. On meeting him in Venice, the successful publisher Pasquali, who printed the Italian translation of the first three volumes of the *Leçons des Physique*, told Nollet of his plans to publish the Italian version of his latest work, *Recherches sur les causes particulières des phénomens électriques* (Paris, 1749), urging him to send the volume in French. He also commissioned a number of copies of Nollet's previous works on electricity, to be sold in Italy.²⁴

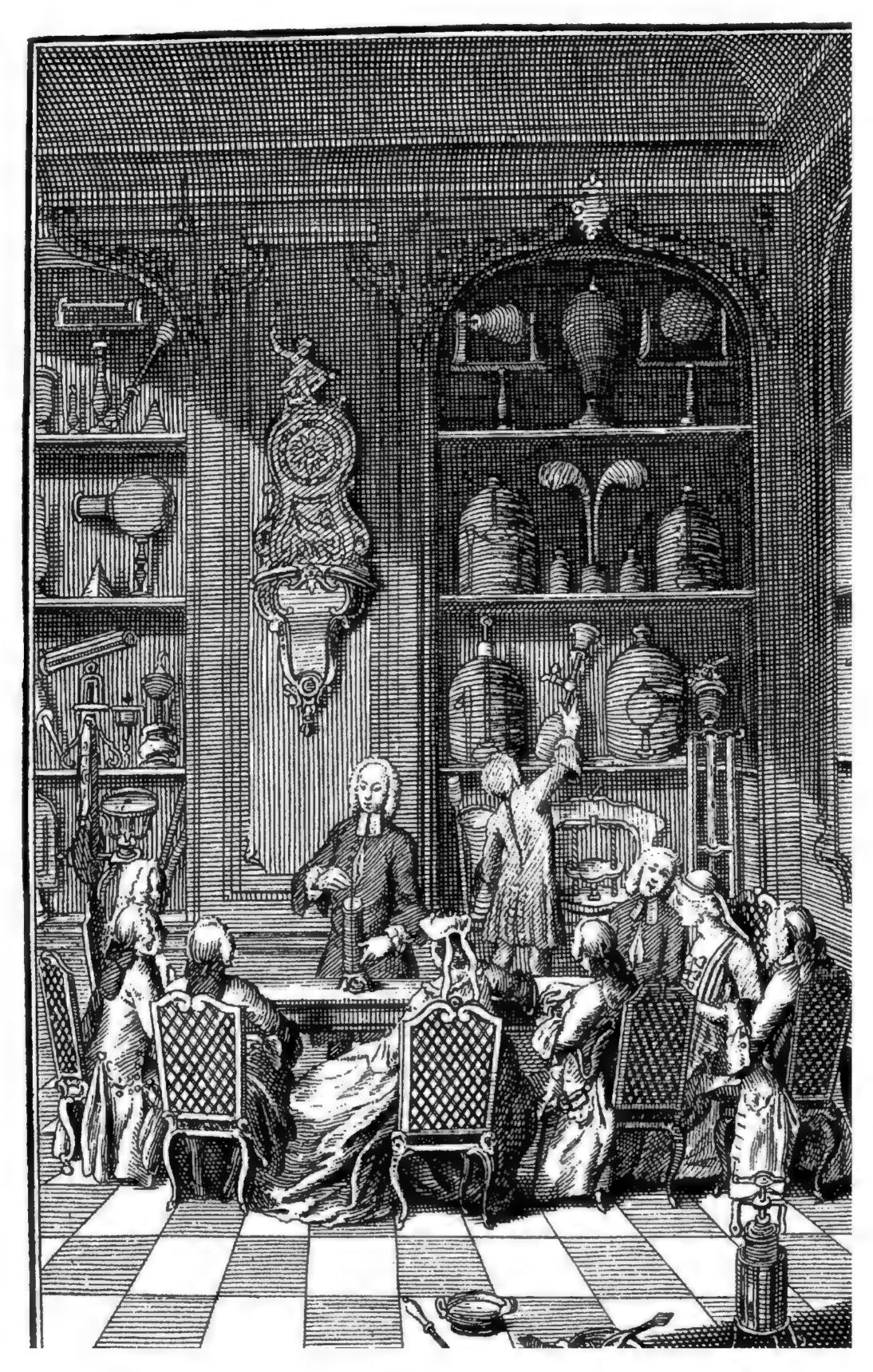
For those who were already familiar with Nollet's work, his presence added the unique experience of listening to his voice and seeing him perform to the ritual of reading out his lectures (Fig. 10.2). In Turin, he could rely on his own instruments, the ones that the University had bought from him ten years earlier. He employed them during his lectures to the young princesses, who appreciated his work so much as to require repeats. Nollet introduced them to his theories of electricity, passing entire days showing them its wonders. In private, however, he complained about the amount of time this took up.²⁵ The King of Piedmont himself was so fascinated by Nollet's lectures that on 13 June, while performing and lecturing for the Duke of Savoy, he asked the Duke if he could also attend the lectures.²⁶ Nollet's teaching style made him a tutor much in demand. When news spread that the famous French philosopher was in Italy, the Austrian ambassador in Naples, on behalf of the Empress,

²³ Nollet, *Journal*, 177^r, 194^r and 212^r.

²⁴ Nollet, Journal, 95^r.

²⁵ Nollet, Journal, 69^r.

²⁶ Nollet, Journal, 39^r.



10.2 Nollet lecturing on experimental philosophy for an aristocratic audience. From Jean Antoine Nollet, Leçons de physique experimentale, vol. 1 (Amsterdam, 1754). Reproduced by kind permission of the Bakken Museum and Library for Electricity in Life, Minneapolis.

insistently offered him a permanent position at the Viennese Court, an offer Nollet gently, but firmly, declined.²⁷

From Turin to Naples, Nollet's arrival was an event that aroused great expectations. In the conversational context of experimental philosophy, the gatherings in aristocratic *salotti* were important occasions for social networking and self-promotion. So, while promising the duchess of Caserta to hand on her regards to the Marquise du Châtelet, Nollet electrified her with his accounts of his recent experiments and discoveries. She was so enthusiastic as to request all his latest works.²⁸ Nollet took special pleasure in female interest in experimental physics:

how glorious, my dear friend, for physics to have conquered the beautiful sex ... lately I received the visit of that female philosopher, ha! my friend, that physics has some graces when it is well coiffured!²⁹

He also knew how to turn personal success into business opportunities. In Venice as well as Rome and Naples, after passing pleasant summer nights talking philosophy with him, the ladies of the aristocracy craved to have his books on their shelves. Meticulously, Nollet took note of their requests.³⁰

Nollet's experimental style, blending natural philosophy with spectacle, was looked upon with much interest also by Italian professors seeking local patronage. Many an academician took advantage of his presence to ask his advice on how to please the tastes of their various audiences. In Naples, the physics professor Giovanni Maria La Torre, who had been recently appointed a demonstrator of experiments for Neapolitan princely youth, sought his collaboration in order to give his lectures the charming touch that characterised those of the abbé. In Rome, Père Jaquier, professor at the University La Sapienza, asked Nollet's opinion on which experiments to perform during a public demonstration, whereas Père Carlo Noceti wanted to be instructed in Nollet's electrical theories, so as to include them in the Latin poem on electricity that he intended to write.³¹

If the aristocracy received him as a curiosity not to be missed, in the cultural capitals Nollet made sure he visited those local celebrities whose fame had already been celebrated by previous French visitors, such as Charles-Louis de Secondat, Baron of Montesquieu, and Charles De Brosses, president of the parliament of Dijon: the learned women, the 'wonders of their sex'. In Milan, he was welcomed at the house of Signor Agnesi, whose daughter, Maria

²⁷ Nollet, Journal, 212^r.

²⁸ Nollet, Journal, 159^r.

²⁹ Benguigui, *Théories électriques du XVIIIe siècle*, 101 (Nollet to Jallabert, 4 December 1740) '... quelle gloire, mon cher amy, pour la physique d'avoir conquis le beau sexe, ... j'ay receu dernièrement la visite de ce philosophe feméle, ha! mon amy, que la physique a de grâces quand elle est bien coifflée!'

³⁰ Nollet, Journal, 99^r and 152^r.

³¹ Nollet, *Journal*, 157^v and 143^r.

Gaetana, had achieved fame at the age of seventeen thanks to her ability to discuss mathematical analysis. The philosophical soirées at Signor Agnesi's were embellished by the performances of Maria Gaetana's sister, who played the piano while her elder sister dealt with a subject chosen by one of the visitors.³² The pattern of the literary salon with a female prodigy repeated itself elsewhere, with differences that were due in large measure to the different patronage system that sustained the local 'wonder of her sex'. Nollet could boast of having interacted with the most famous of them while in Italy. In the French-ruled Kingdom of Naples, he met Maria Angela Ardinghelli, a young girl who had just translated Stephen Hales's Vegetable Staticks into Italian. Nollet was impressed by Ardinghelli. He described her as a 'very virtuous young person, who in a very short time has greatly progressed in the sciences',33 and promised to send her his works on electricity from Paris.34 In Ardinghelli's *salotto*, philosophers discussed and even exchanged their works: Professor Della Torre presented Nollet with his books on experimental physics, whereas Ardinghelli gave him two mathematical problems for Clairaut. A few years later, Nollet wanted to highlight his intellectual encounter with the young Neapolitan lady, dedicating the first of his Lettres sur l'électricité to her (Paris, 1753). Another of the six letters was dedicated to Laura Bassi, professor of philosophy at the University of Bologna and a salaried member of the local Institute of Sciences. When in Bologna, Nollet (himself a member of the Institute of Sciences) met the professor and her husband Giuseppe Veratti, one of the electricians whose experiments Nollet had been unable to replicate. They invited him to their home where they discussed electricity, though no replication of the experiments took place. Notwithstanding their disagreement, Nollet started a correspondence with Laura Bassi that was to last over two decades.³⁵

Natural curiosities and Nollet's experimental philosophy

On Nollet's departure from Naples, the King asked him to send his regards to the royal family in Paris and declared that he was 'very happy to see you

On Maria Gaetana Agnesi, see M. Cavazza, 'Between Modesty and Spectacle'; M. Mazzotti, 'Maria Gaetana Agnesi: Mathematics and the Making of the Catholic Enlightenment', *Isis*, 92 (2001), 657–83.

J. A. Nollet, *Lettres sur l'électricité* (Paris, 1753), 6n: 'jeune personne très vertueuse qui a fait en peu temps des grands progrès dans les sciences.'

Nollet, Journal, 194^r. On Ardinghelli, see Findlen, 'Translating the New Science'.

³⁵ See G. Cenerelli, Lettere inedite alla celebre Laura Bassi scritte da illustri Italiani e Stranieri (Bologna, 1885), 95–102; also M. Cavazza, 'Laura Bassi e il suo Gabinetto di Fisica Sperimentale: realtà e mito', Nuncius, 10 (1995), 715–53. On the Institute of Sciences of Bologna see M. Cavazza, Settecento Inquieto (Bologna, 1990); A. Angelini and W. Tega (eds), Anatomie Accademiche, 3 vols, iii: L'Istituto delle Scienze e l'Accademia (Bologna, 1987).

here, I hear you have found many natural curiosities.'36 As the King had remarked, Italian natural curiosities could not miss striking even the sceptical Nollet. In line with the pattern established by other French travellers, and almost following in the footsteps of Misson's ideal pilgrimage through Italian wonders, Nollet stopped off at the sites of celebrated marvellous phenomena. He was accompanied by local philosophers who shared his interests and enabled him to perform experiments. In his travel diary he noted that the Venetian Laguna glittered 'in a marvellous way [d'une maniere merveilleuse]' when 'gondoliers stroke its waters with their paddles', and he was also impressed by some luminous insects, commonly called lucciole, that offered 'a very beautiful spectacle' on early summer nights, when hundreds of them gleamed intermittently like sparkling stars.³⁷ Their light was so bright that five or six inside a glass jar sufficed to 'distinguish easily the objects in my room during the night'.³⁸

Each town held a surprise for Nollet's philosophical eyes, and in some cases, taste. The colourful Roman streets, for example, were overflowing with pieces of watermelon, a fruit that Nollet had never seen. If the 'beautiful colour that [it] offers to the eye' pleased his sight, Nollet was disappointed when he eventually took a bite, and found it 'tasteless'.³⁹ It was around Naples, however, that, 'Nature [was] even more admirable and instructive.'⁴⁰ Mount Vesuvius, with all the attention it received in travellers' and naturalists' reports, had duly raised Nollet's expectations. As he explained to his fellow-members of the Académie des Sciences, before his Italian tour his knowledge of volcanic eruptions had depended entirely on travellers' accounts. Their descriptions were so 'imperfect' as to make him impatient to see the volcano with his own eyes, and therefore 'to be able to reason about the facts with some confidence'.⁴¹ Once there, he measured the volcano's height with a barometer, following Cassini's and Maraldi's method, and when the locals refused to

Nollet, *Journal*, 190^r (underlined in the original) 'je suis fort aise de vous voir icy, on dit que vous y trouuez beaucoup de curiosités naturelles, Je vous prie dasseurer Le Roy e toute la famille royale de mon respect et de mon amitié.'

Nollet, *Journal*, 105^r and 46^r. Nollet's use of 'merveilleux' or 'merveilleuse' with reference to natural phenomena is sparse, however the terms do appear in his published and unpublished texts. Italian translators rendered the French 'admirable', 'extraordinaire' and, of course, 'merveilleux', with the Italian 'maraviglioso'. Compare, for example, J. A. Nollet, *Recherches sur les causes particulieres des phénoménes électriques* (Paris, 1749), xxi, xxvii, with id., *Ricerche sopra le cause particolari dei fenomeni elettrici* (Venezia, 1750), 8, 11. See also N. Kenny, *Curiosity in Early Modern Europe: Word Histories* (Wiesbaden, 1998), ch. 5: 'Neighbours of Curiosity in Early Modern Discourse', 106–88.

³⁸ Nollet, *Journal*, 46^r.

³⁹ Nollet, Journal, 149^r.

⁴º Nollet, 'Suite des expériences et observations en différens endroits d'Italie', Mémoires de l'Académie des Sciences de Paris (1750), 54–106 at 67.

Nollet, 'Suite des expériences', 79–80 'j'avois encore besoin de voir par moi-même, pour être en état de raisonner sur les faits avec quelque confiance.'

let him climb down into the crater, he contented himself with looking at the streams of lava and with the examination of the vapours exhaling all around.

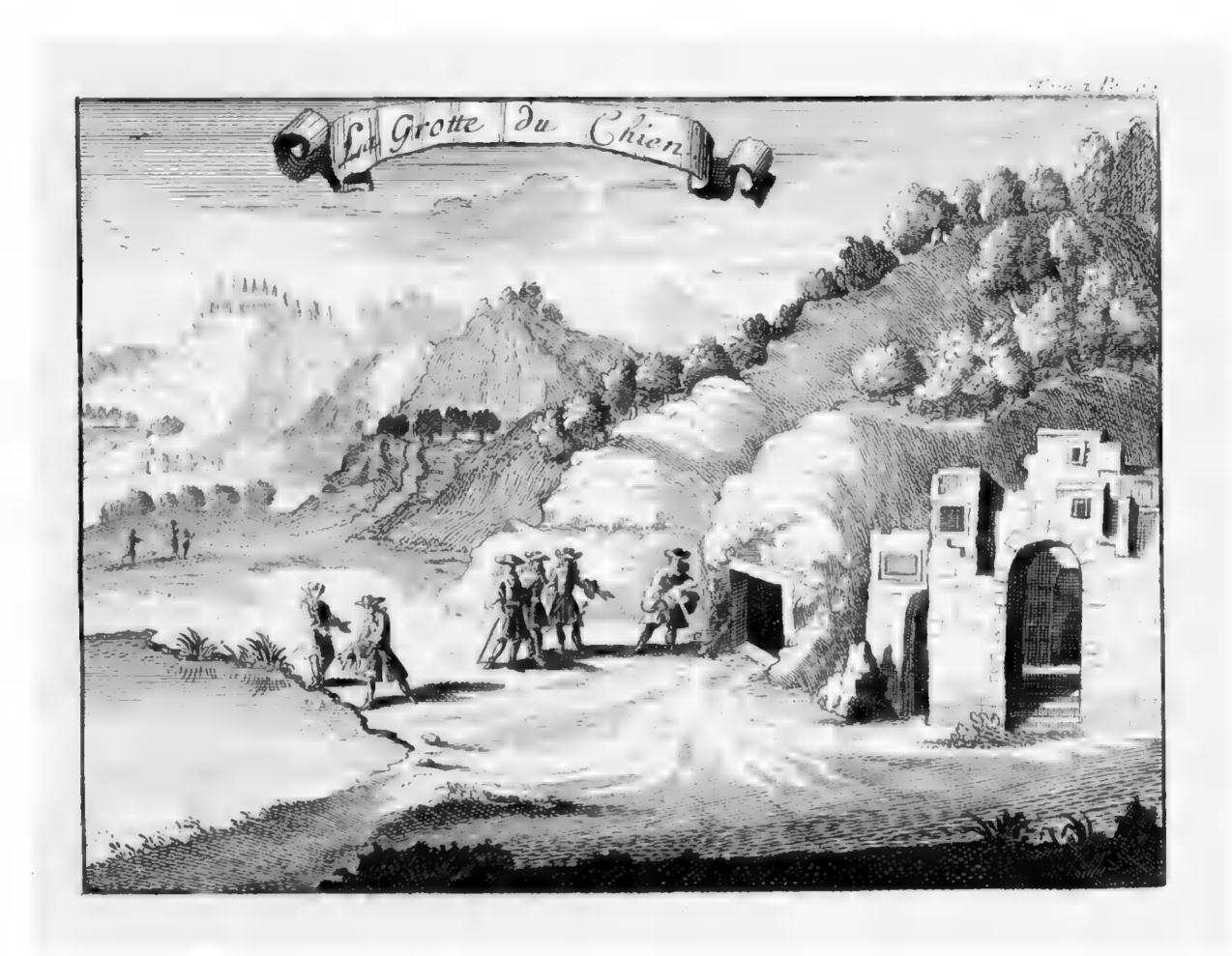
Back in Paris, Nollet had collected enough dispelled wonders to engage the members of the Académie des Sciences in several meetings over the course of a year and to fill a total of ninety-eight pages in two volumes of the *Mémoires* of the Académie Royale des Sciences. His tour consolidated both his authority in the Republic of Letters and his income as an author and instrument-dealer. Not only did Italian amateurs and savants commission his books and instruments, after the journey he was also offered a teaching position at the University of Paris: in 1753, the King appointed him professor of experimental physics at the Collège de Navarre. At the end of his journey, Nollet found seven new foreign correspondents from the Italian peninsula for the Académie (among whom the secretary of the Institute of Sciences, Francesco Maria Zanotti, and the professor of Physics at Turin, Giambattista Beccaria) and arranged for the *Mémoires* to be received systematically by a number of academic libraries.

Nollet's journey was simultaneously a self-promoting tour to build up connections with the aristocratic and academic worlds south of the Alps, and fieldwork in which the protocols of experimental philosophy were exported to the sites of supposedly marvellous phenomena. Nollet admitted that he had had to divide his Italian days (in particular those spent in Naples) between his own research and the obligations of bienséance,43 or in other words, between social networking with the local experts and amateurs, and the gathering of information that would respond to the expectations of the Académie's members. In both contexts, the culture of wonder and curiosity played a significant role, though it was played upon with different strategies. If in the former context, as we have already seen, Nollet relied on the wonders of experimental philosophy to catch the attention of the aristocracy (and in part also of the intellectual élite), in the latter, his battle against the marvellous was predicated upon the erasure of the border between the natural and the artificial. His descriptions of the experiments he had carried out at the sites of celebrated 'natural curiosities' showed that the instruments and procedures of experimental philosophy had universal value; they did not partake of the local or unique nature that characterised accounts of the marvellous.

If the glittering laguna dazzled him just like other travellers, he did not allow his own personal amazement the final word. One night, when the phenomenon was particularly striking, he asked a servant to place a sample of the water in a glass vessel in order to study the conditions under which the luminescence manifested itself. Once in his room, Nollet examined the water by candlelight and noticed some thin seaweed that, when touched, produced luminous

⁴² Archives de l'Académie des Sciences, Paris, Procès Verbaux, 69 (1750) and 70 (1751).

⁴³ Nollet, 'Suite des expériences', 67.



10.3 The Grotta del Cane, near Naples. From Maximilien Misson, *Voyage d'Italie* (Utrecht, 1722). Reproduced by kind permission of the Library of the University of Bologna.

spots. The similarity with *lucciole* made him think that the phenomenon might be caused by a small insect and, upon observing the seaweed more closely, he indeed noticed a small animal that, when touched, emitted light.⁴⁴ Later in the course of his journey, he discovered that a Bolognese physician, Vianelli, had already identified in the small insect the cause of the phenomenon, but he only mentioned Vianelli's work in a footnote to his article for the *Mémoires*. The fact that Vianelli had already written about the insect gave more substance to his argument: while conceding the former's originality, he added a witness, and therefore authority, to his own testimony.

Even more detailed was Nollet's description of the experiments he carried out at the Grotta del Cane, near Naples (Fig. 10.3). The Grotta, for centuries an attraction for curious travellers, was a cave where a mysterious, odourless vapour killed off forms of life that were forced to breathe near ground level. The guardian of the grotto made a business out of demonstrating to the visitors

⁴⁴ Nollet, Journal, 106^r.

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that a dog would go into convulsions when forced to breathe near the ground inside the cave, but would soon recover its vital functions if freed and taken outside, to breathe by the nearby lake. Such a demonstration gave the cave its name and attracted people even from far away. Travel guides abounded with the descriptions of famous visitors' trials with suffocating dogs, birds, reptiles or even servants. Misson published a list of famous 'experimenters' that included the French king, Charles VIII.⁴⁵ Thus, Nollet's willingness to carry out experiments at the Grotta was not a novelty, although his experimental practice was tuned to the most up to date methods and instruments of experimental philosophy. Once in the grotto, accompanied by two Neapolitan philosophers, Nollet measured both the temperature (with a Réaumur thermometer) and the humidity of the surrounding air. Transforming the grotto from a place of idle curiosity and wonder into a chemical laboratory for the analysis of 'airs', Nollet noticed that the mysterious vapour was warmer than the air outside, and that the ground in the cave was humid. He studied the relative density of the air, the vapour and the smoke of a candle whose flame was soon extinguished in the grotto. He tried the dog experiment on various forms of life, including insects, worms and reptiles, and on himself. Although he admitted that the nature of the fluid remained a mystery, even after his experiments, he emphasised the novelty of his approach:

it is not by the bare extinction of animal life that a judgement can be formed ... it is rather by examining the vapour itself, with a view to knowing its nature, or at least some of its essential qualities; and in this view it was that I prosecuted my experiments.⁴⁶

On the basis of his trials Nollet concluded that the local belief in the vivifying properties of the nearby lake was wrong, as was the idea that the vapour acted as a poison. The vapour was a fluid, heavier than air, which killed animals because they could not breathe in it: '[they] are drowned in a fluid incapable of supplying the place of the air, which they want.'47

In spite of Nollet's professed battle in the name of truth, not all the prodigies he had encountered could be publicly discredited, even when they seemed quite evidently fraudulent. When he arrived in Naples, for example, he was astonished by the number of people of all social classes assembled in the Duomo, waiting for San Gennaro's blood (kept in a reliquary) to liquefy, and by their total involvement in the event. He attended the ceremony for a few days, during which the blood remained hard, to the dismay of the

⁴⁵ Misson, *Voyage*, 63–6. In modern terms, the 'odourless vapour' that killed small animals is carbon dioxide, often exhaling from the underground in volcanic areas: being denser than air, it sinks to the cave's ground.

⁴⁶ J. A. Nollet, 'Extract of the Observations made by the Abbé Nollet on the *Grotta de Cane*' in *Philosophical Transactions of the Royal Society* (1751–2), 48–61 at 55.

⁴⁷ Nollet, 'Observations ... on the Grotta de Cane', 59.

Neapolitans: 'women fell into convulsions' while men anticipated terrible events for the year to come at the sight of the blood still 'duro duro duro'.⁴⁸ But when, after what seemed an endless time, the long-awaited liquefaction took place, the people, released from their visions of imminent apocalypse, ran into the streets, exulting and rejoicing. 'This is the Neapolitans' pretension, here is what I saw', he wrote in his diary.⁴⁹ To Nollet, the presumed miracle was simply the result of the heating and shaking of the glass vessel that contained a blood-like substance: during the ceremony the priest handed the reliquary to several people who kissed it repeatedly, and when they returned it, he placed it near the flames of candles so as to observe whether it was still hard. It was obvious to Nollet that 'in the end, with all the kissing and handling and casting light on the relic with a candle', the upper part of the presumed blood softened, 'as is usual for a solid substance that begins to melt inside a vase whose sides are warmed up'.50 He was 'very negatively impressed by this abuse', and the same evening, while having dinner with ten Neapolitans, he said frankly what he thought of the miracle of San Gennaro:

Sirs ... if what I saw is truly the blood of a Martyr and Saint, I respect it whether it is hard or soft; but nothing seems to me less miraculous than a substance that could be a completely different thing than blood, melting when it is warmed up.⁵¹

This was his only challenge to the miracle of San Gennaro. Miracles were the property of the church, and it was not up to (and probably not even the aim of) an abbé to fight against superstition when it was disguised as faith. Whereas the attack on the love of the marvellous was a *topos* of Enlightened natural philosophy, disbelief in presumed miracles had to be left to Enlightened sarcasm. There was nothing new for Nollet to add to what Montesquieu and De Brosses had already written about it, and during his private audience with the Pope, a patron of the sciences, natural philosophy was a much more convenient subject to talk about.⁵²

Wrestling with wonders proved for Nollet a winning move. At the end of 1749, when he returned from his nine-month tour, his various accounts were published in the *Mémoires* of the Académie Royale des Sciences and in the *Philosophical Transactions* of the Royal Society of London.⁵³ For a philosopher

⁴⁸ Nollet, Journal, 172^r.

⁴⁹ Nollet, *Journal*, 173^r. 'Voila la pretention des Napolitans; voici ce que j'ay vû.'

Nollet, *Journal*, 173^v and 174^r. 'Comme a costume de faire une matiere durée, qui commende a se fondre dans un vaisseau dont on chauffe les parois.'

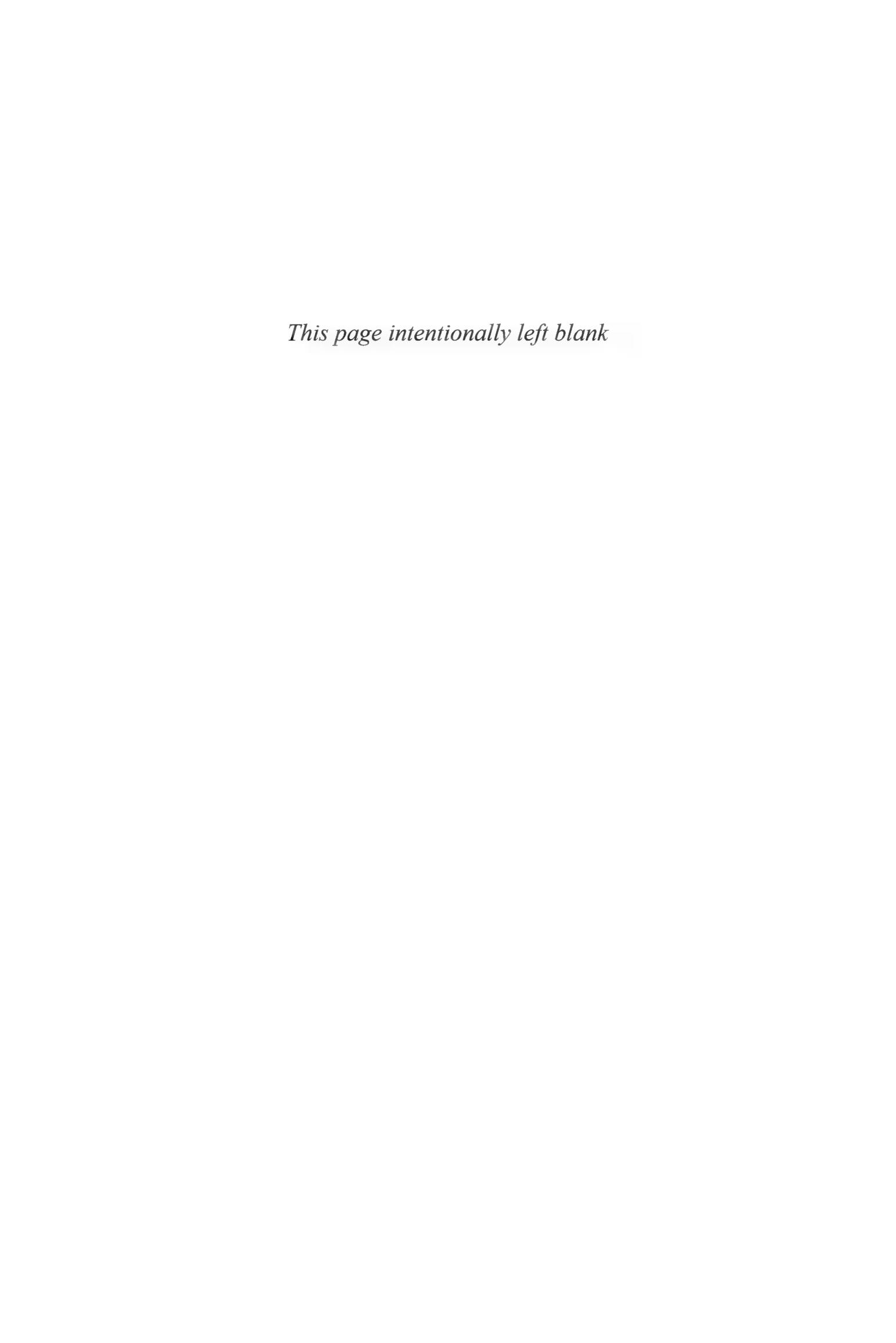
Nollet, *Journal*, 174^{r-v} 'Msr ... si ceque j'ay vû est veritablement le sang d'un St. Martyr, je le respecte autant dur que mol; mais rien ne me paroit moins miraculeuse que de croir une matiere, qui peut être toute autre chose que dû sang, se fondre quand on la chauffes.'

Nollet, *Journal*, 149^{r-v}. Bertucci, 'Sparking Controversy'.

⁵³ J. A. Nollet, 'Expériences et observations en différens endroits d'Italie' in Mémoires de l'Académie des Sciences de Paris (1749), 444–88; 'Suite'; 'Observations ... on the Grotta de Cane';

who made his battle against the love of the marvellous a recurrent refrain (at least at the rhetorical level), the abundance of 'marvels of nature and art' in the Italian peninsula offered an excellent opportunity to gain credit in the enlightened Republic of Letters. Just like a collector returning from his tour, when he was back in Paris Nollet negotiated the value of what he had seen and done south of the Alps. His experiments in the sites of famous, mysterious natural phenomena were for his fellow philosophers irresistible curiosities. In this context, Nollet applied the anti-marvellous register, emphasising the credulity of the locals and counterpoising his experimental procedures. Whereas superstition, deception and love of the marvellous left the ignorant with his or her mouth open, the philosopher, animated by love of truth, engaged in experimenting upon nature so as to include the apparently extraordinary within the order of nature. In this respect, wonders were there for philosophers to show that there was nothing really wonderful in them. As exceptions that proved the rule, they even strengthened the explanatory power of natural philosophical systems. Beyond the Enlightenment rhetoric, however, it was the 'wonderful' in experimental philosophy that facilitated Nollet's connections with the Italian aristocracy and the academic élites. If on the one hand, in his published report, he pointed to the Italians' 'love of the marvellous' as responsible for their erroneous conclusions, on the other, the natural and artificial marvels that in Italy abounded formed part of the cultural landscape in which his tour had taken place. Apart from the literary construction of the disinterested philosopher in search of truth, who fought against credulity and 'love of the marvellous', individual careers, as Nollet's own testifies, were cast against the background of a patronage system that was still sensitive to the unusual, the rare and the wonderful. Far from being ignored by natural philosophers, wonder and wonders could, simultaneously, please patrons in search of amusement, and offer competitive and ambitious individuals like Nollet the opportunity to prove their philosophical worth. Whether endorsed or debunked, wonders and marvellous phenomena still provided valuable opportunities for individuals to carve out niches for themselves, and through which their reputation would shine.

^{&#}x27;Extract of a letter from the Abbé Nollet, FRS &c. to Charles Duke of Richmond, FRS accompanying an examination of certain Phaenomena in electricity, published in Italy', *Philosophical Transactions of the Royal Society of London*, 46 (1749–50), 368–97.



Curiosity and the lusus naturae: The case of 'Proteus' Hill

George Rousseau

A new object that bears some distant resemblance to a known species, is an instance of a third degree of novelty ... The highest degree of wonder ariseth from unknown objects that have no analogy to any species we are acquainted with.

Lord Kames, *Elements of Criticism*, 1762¹

For Kames the 'curious', fast-burning desire for novelty, by an association of ideas, can be attached to persons ...

N. Leask, Curiosity and the Aesthetics of Writing, 1770–1840, 2000²

The passion of wonder did not wholly disappear from the edicts of the Republic of Letters in the Enlightenment, but it shifted its objects and altered its texture almost beyond recognition.

L. Daston and K. Park, Wonders and the Order of Nature, 3623

To these quotes (from Henry Home, Lord Kames, the astute observer of human nature in the Scottish Enlightenment, on his burning passion for novelty as the condition for the curious; Nigel Leask – the recent commentator on the aesthetics of curiosity in relation to travel – on Kames; and Lorraine Daston and Katherine Park on the bifurcation of curiosity during the eighteenth century in the conclusion of their compendious book about the pathways of wonder) must be added Isaac Disraeli's claim, in one of his books about the

Throughout this essay I use the terms Royal Society, Republic of Letters and Grub Street despite their asymmetry: the Royal Society was an organisation of people as well as a place designated by a building; Grub Street, as much a state of mind as a geographical place, also designated a trade within, or profession of, writing; the Republic of Letters a very loose designation of gentlemen of similar cast, far-flung in different countries, bearing a complex and controversial relation to the European Enlightenment. The distinctions are noteworthy as they codify and separate some of the versions of curiosity discussed here.

¹ Lord Kames, *Elements of Criticism*. *The Sixth Edition*. *Two Volumes* (Edinburgh, 1785, 6th edn rep. 1762), ii, 267–8; this edition contains Kames's last corrections and additions.

² N. Leask, *Curiosity and the Aesthetics of Writing*, 1770–1840: 'from an antique land' (Oxford, 2002), 26 and especially the section entitled 'Curiosity and the Aesthetics of Distance', 23–32. So far as I am aware, Leask was the first to recognise Kames as spokesman for the view that novelty in the Enlightenment could attach to *persons* as well as things. Kames is not mentioned by Daston and Park or Benedict; see L. Daston and K. Park, *Wonders and the Order of Nature*, 1150–1750 (New York, 1998) and B. M. Benedict, *Curiosity: A Cultural History of Early Modern Inquiry* (Chicago, 2002). I have also profited from K. Pomian, *Collectors and Curiosities: Paris and Venice*, 1500–1800, trans. E. Wiles-Porter (Cambridge, 1990) and especially from N. Kenny, *Curiosity in Early Modern Europe: Word Histories* (Wiesbaden, 1998).

³ See n. 2.

neglected discourse of 'curiosity', that 'the genius of Hill was not annihilated by being thrown down ... like Proteus, it assumed new forms.' All four are central to my argument that Sir John Hill (about whom more in a moment) was such a figure, if also comic and amusing. To support the claim I want to affix to the view of all four of these students of curiosity the notion that during the Enlightenment curiosity could attach to *persons* as well as objects and things.⁵

Kames and Disraeli notwithstanding, it is perfidious business for any historian of the early modern period to mount a case, however cautious and limited, based on the participating human self. The self is such an amorphous concept; has endured historically so long in one form or another – before the early modern era it bewildered the Greeks, Romans, and kept Augustine, Bishop of Hippo, awake wondering about its protean shapes despite his resistance to curiositas malefixus (malevolent curiosity) – that it is difficult to know how to historicise it let alone relate it to curiosity. Curiosity indeed seems to lie removed from selves: if not somehow discrete from their innate selfhood, then a state of mind among curious selves and, under other conditions, a passion of the self – in the new post-Enlightenment sense of emotions – which further challenges historicising.⁷ Even so, the historian who casts a wide net, extending synchronically backwards and forwards, detects major shifts. My argument focuses on a broadening of the sources: extending from objects to selves and then, from selves to mankind in general, occasionally captured in the figure of the *lusus naturae* or wonder of nature. Here it is based on one figure, often referred to in his own time as 'Proteus Hill' or lusus naturae.8

⁴ I. Disraeli, The Calamities and Quarrels of Authors 2 vols (London, 1859), ii, 196-7.

⁵ See Claire Preston's chapter in this volume for similar attachments in the seventeenth century.

⁶ For example, B. Snell, *The Discovery of the Mind* (New York, 1953); G. E. R. Lloyd, *The Ambitions of Curiosity* (Cambridge, 2002); R. Porter, *Flesh in the Age of Reason* (London, 2003), 286–373.

⁷ For the history of the passions in the early modern world, see T. Dixon, From Passions to Emotions: The Creation of a Secular Psychological Category (Cambridge, 2003) and P. Fisher, The Vehement Passions (Princeton, 2003).

⁸ The phrase has a complex history in its English usages 1650–1800. Sometimes translated as 'wonder of nature', elsewhere as 'play of nature', the trope is as ambiguous as it is peculiarly problematic, as Paula Findlen has demonstrated, and in whose debt I remain for some of the Renaissance contexts of this chapter; see her 'Jokes of Nature and Jokes of Knowledge: The Playfulness of Scientific Discourse in Early Modern Europe', Renaissance Quarterly, 43 (1990), 292–331. For an example of the trope in eighteenth-century natural science, see An Account of the Origin and Formation of Fossil-Shells etc. Wherein is proposed a way to reconcile the two different opinions ... and those who fancy them to be lusus naturae (London, 1705), attributed to Charles King who on pp. 5–6 imagined shells as lusus naturae in yet other playful ways than Findlen has. Findlen writes: 'The use of lusus naturae, as shells certainly were, to create a lusus scientiae, that was an image of the ultimate lusus, man, set in motion a chain of operations that playfully inverted (or even subverted) nature's ability to mimic and ultimately transform herself.' Findlen is surely correct to notice, in agreement with Leask (n. 2), that 'the eighteenth-century naturalists classified this particular form of lusus [that is, shells] as an aesthetic rather than a scientific joke' (318). Man as 'the ultimate lusus'

There can be no doubt that Hill was viewed as a 'marvel' – a prodigy of some type – in his own time. On the single occasion when Samuel Johnson, the Great Cham of Literature, was summoned to be interviewed by his sovereign, George III, the King asked him only four questions, one of which was what Johnson thought of John Hill.⁹

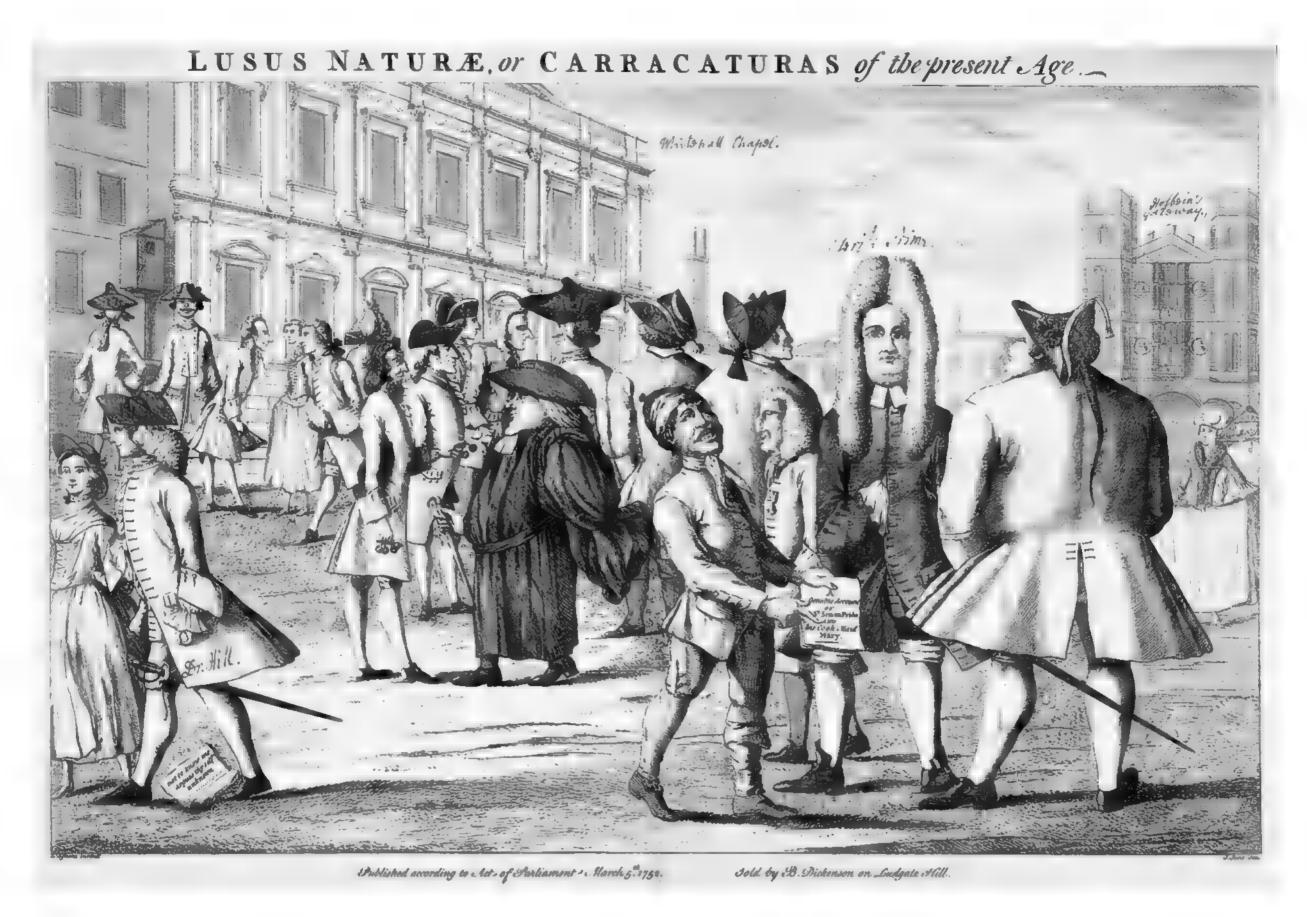
John Hill (1714–75) was a household name among the Georgians: collector, doctor, virtuoso, member of the leading band of *curiosi* in England, something of a Renaissance Man.¹⁰ My analysis proceeds aware of the limitations of viewing cultural shifts through biographical figures, especially when contested and fraught.¹¹ Nevertheless, through a brief analysis of Hill's life compared to other contemporary *curiosi* I hope to explain, first, what it meant to be dubbed *lusus naturae* (itself a topic of concern to the profiles of curiosity); and secondly, to shed light on shifts in curiosity and subjectivity (Fig. 11.1).¹²

Ι

The word 'curiosity', and – if Hill's prolific writings offer any indication – its cousin-passions in wonder and amazement, was present in Hill's mind, as it must have been in that of his contemporaries. For example, he was struck by the 'curiosity' of the 'modern lady of fashion' in his *Inspector* columns published weekly on Tuesdays and Fridays from 1751 onward in the *London Daily Advertiser*. Soame Jenyns (1704–87) had depicted her generic character in 'The modern fine lady', a poem reissued in several editions in 1751. Hill was dazzled by the poem's reception and seized upon her 'curiosity', especially

begins to approach the versions of Hill's protean transformations in his own time. Also germane here are the comments of L. Daston in 'Nature by Design' in C. A. Jones and P. Galison (eds), *Picturing Science, Producing Art* (New York, 1998), 232–53, especially 242 for the *lusus naturae*.

- 9 James Boswell, Johnson's early biographer, published Johnson's own verbatim account of this famous interview; see *Samuel Johnson's Celebrated Letter to the Earl of Chesterfield: and his Interview with King George III as Published in 1790 by James Boswell* (London, 1927).
- ¹⁰ See G. S. Rousseau, *The Renaissance Man in the Eighteenth Century* (Los Angeles, 1978), 45–129.
- My rationale is double: first, as Hill's biographer I have followed this figure for three decades and see darkly into the strengths and limitations of the approach; secondly, Hill was explicitly called *lusus naturae* in his own time and caricatured as such hence the fundamental historicity of the approach. I especially want to explore what the trope meant for the types of curiosity the designation revealed or concealed.
- Subjectivity is explicitly related to curiosity by *c*.1750 in the aftermath of Descartes, Locke, Hume and other early epistemologists of selfhood; for background, see C. Taylor, *Sources of the Self: the Making of Modern Identity* (Cambridge, 1989, rev. 1998).
- Inspector, 5 (11 March 1751). For Hill's journalism, see G. S. Rousseau, *The Letters and Private Papers of Sir John Hill* (New York, 1982). For the chimpanzee lady, see G. S. Rousseau, 'Madame Chimpanzee: Parts One and Two', *Papers of the William Andrews Clark Memorial Library* (Los Angeles, 1986–7), 1–7. The display of the boy Mozart, as a wonder of nature performing at the keyboard, has been described in many secondary sources.



11.1 Lusus naturae of the age. Caricature entitled Lusus Naturae, or Carracaturas of the Present Age, showing Hill in the left foreground amidst the most remarkable of his contemporaries. Reproduced by kind permission of Professor G. S. Rousseau.

in the sexual realm. Yet he found her defective as a modern character: 'The Character of a Woman', he writes – tip-toeing around his nuanced vocabulary – 'who becomes abandoned from mere Curiosity, is certainly in Nature, yet has been totally overlooked that it is new to us in this Piece.' This was Hill's rationale for her embrace by the 'Town': curiosity had been so far transformed from its early footing in marvels of the natural and artificial world that by 1751 it routinely begins to apply to *modern persons* and their sexual wonder.

Jenyn's 'modern fine lady' is not an isolated case, as any survey at midcentury demonstrates. The 'chimpanzee lady' who spoke French in Charing Cross in the 1730s, and – early in the 1760s – the musical prodigy Mozart, performing at age seven at the keyboard in the Royal Society, were diverse variations. Hill used the word curiosity in this sense (that is, as affixed to persons rather than things) in his letters and didactic

The degree of curiosity among individuals was then often identified in relation to their ability to be attentive; see G. S. Rousseau, 'Psychology' in G. S. Rousseau and Roy Porter, *The Ferment of Knowledge: Studies in the Historiography of Eighteenth-Century Science* (Cambridge, 1980), 163–92. See also L. Daston, 'Curiosity and Early Modern Science', *Word and Image*, 11, 4 (1995) for the relation between 'sustained' curiosity and burgeoning 'scientific' enquiry.

works.¹⁵ Even so, his 'curious lady' is unrepresentative of his own profoundest wonder. This he reserved for the curiosity driving the motor of his own character, which energised him to engage in almost hypermanic activities; for these he became noteworthy, if also notorious, in his time. The curiosity he most cultivated in adulthood was directed at *himself*. This was a new form in the process of recognition by his contemporaries. It led to Hill's inclusion, as we shall see, among the *lusi naturae* or wonders of nature of his era.

But we must step back. Today Hill remains obscure and unretrieved, even if he was notorious in his own day: an outsider who perplexed the public. Never elected to the Royal Society (a feat in itself as almost anyone eligible could get elected), he spent much of his life searching for patronage as his only means of entry to the Republic of Letters. 16 Yet he remained an outsider; indeed, his outsiderdom elevated to the niche of 'lusus', as much freak as wonder boy. The value of assessing shifts in curiosity through the character he cut is that genuinely representative figures of an epoch are often secondary: not acknowledged geniuses but its lesser sorts. In a nutshell, Hill is an ideal figure to make three points about Enlightenment curiosity. First, in relation to the now predominant historical view that old-styled curiosity was on the wane.¹⁷ Second, that the shift in curiosity witnessed a concurrent development removed from traditional natural objects: especially fossils, which Thomas Fuller had long ago called *lusus naturae*: 18 shells, rocks, marbles, geological formations and the artificial instruments and machines these inspired by the mid-eighteenth century.19 These first two shifts occurred gradually over generations from the late seventeenth century, yet nevertheless became a landmark of late Enlightenment culture. Locke, Hume and the Scottish Enlightenment philosophers would not have agreed about many propositions, but concurred that those human beings could occupy the focus of attention in their new science of man, who was as remarkable as any 'curiosity of nature'.20 Presumably it is to this type of 'curiosity' that Swift refers when the exiguous Lemuel Gulliver finds himself among the giants of Brobdingnag who conclude 'unanimously, that I was only *relplum scalcath*, which is interpreted literally as lusus naturae.'21

¹⁵ See Hill's On the Education and Management of Children (London, 1754), 76–92.

¹⁶ For curiosity in the Republic of Letters, see L. Brockliss, *Calvet's Web: Enlightenment and the Republic of Letters in Eighteenth-Century France* (Oxford, 2002), 3–12.

Daston and Park, in *Wonders and the Order of Nature*, have eloquently articulated this argument in their last chapter, 'The Enlightenment and the Anti-Marvelous', 329–64.

¹⁸ T. Fuller, *The History of the Worthies of England* (London, 1662), I, 351.

¹⁹ For the traditional objects, see P. Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley and Los Angeles, 1994); for artificial objects see the essays by Adriana Turpin and Alexander Marr in this volume.

²⁰ See C. Taylor, *Philosophy and the Human Sciences* (Cambridge, 1985); C. Gordon (ed.), *History of the Human Sciences*, 3 vols (London, 1990).

J. Swift, Gulliver's Travels (1726), II, ch. iii, the only use of lusus naturae in his collected works.

Finally, the third, relatively new, form emerged *circa* 1750: centred on the self it was not focused on narcissistic or demented persons but directed at *selves* zealous to learn anything possible about the human psyche and mind. This version was a precursor of modern psychology.²² It was the view, even if not explicitly articulated, that every 'selfhood' was as mysterious, and worthy of exploration, as natural objects and geographical places had been. Samuel Johnson, the great moralist and literary critic of his day, epitomised it in the precept that 'no life is too small to be unworthy of a biography.'²³ Naturalists and medical thinkers embroidered it by scrutinising aberrations of human nature and testing their limits.²⁴ Others among early Enlightenment psychologists and anthropologists searched for anomalies among the races of mankind, looking for specimens of prodigious human size or skin, height or weight, especially in the annals of longevity.²⁵

A single figure cannot, of course, typify these transitions, but focus on Hill permits us to comprehend, in miniature, how curiosity was being constructed and, later, refracted between the Georgians and late Romantics. By the nineteenth century, men – and women – had usurped centre-stage. Romantic curiosity developed into an ethic and state of mind rather different from its predecessors. 26 The earlier curiosity of the decades from c.1740–90 has been neglected. A case study is made in miniature through the figure of Hill's career. The socio-economic forces of his time conspired to produce the individual he became, somewhat in the way modern theorists of the public sphere demonstrate that character and action are not unpredictable phenomena but by-products of a social milieu, without which they would not have arisen in the first place. 27

²² See Rousseau, The Ferment of Knowledge, 143–210.

²³ S. Johnson, *The Rambler*, no. 41.

As in the longevist discourse, grown popular in the late eighteenth century, of 'long livers' and others attaining miraculous life-span; see G. S. Rousseau, 'Towards a Geriatric Enlightenment' in K. Cope (ed.), 1650–1850: Ideas, Aesthetics, and Inquiries in the Early Modern Era (New York, 2001), 3–43. Erasmus Darwin applied these human marvels to insects and plants, analogously, to Nathaniel Wanley's 'wonders of the little world'. Wanley's 1678 'wonders' were subtitled 'a general history of man'; curiosity figured into his appraisal of human nature in *The History of Man; or, The Wonders of Human Nature* (London, 1704). In the century 1750–1850 dozens of books appeared in English under the title *The Wonders of Nature and Art* whose 'most remarkable curiosities' were 'among mankind'.

²⁵ For primary sources, see J. S. Slotkin, *Readings in Early Anthropology* (London, 1965).

²⁶ Romantic theories of genius demonstrated these transitions; see A. Cunningham and N. Jardine (eds), *Romanticism and the Sciences in History* (Cambridge, 1990), especially the chapter by S. Schaffer; A. Elfenbein, *Romantic Genius* (New York, 1999).

²⁷ See J. Habermas, The Structural Transformation of the Public Sphere: an Inquiry into a Category of Bourgeois Society (Cambridge, MA, 1989; orig. 1962).

II

Hill was born in rural Northamptonshire in 1714, the youngest of four children (two of his older brothers died as babies). Little is known about his mother; his father Theophilus was a minor clergyman of the Church of England, versed in medicine as part of his Christian Stoic belief that good 'shepherds' minister to both the spirit *and* body of their flocks.²⁸ Theophilus amassed a small library of approximately two hundred medical books (then a large number for a modest country parson) that he taught the young John to read. Theophilus also instilled in both sons a love for collecting: shells, fossils, rocks and plants – all the things of the natural world. John was particularly keen to learn and attentive to his father's fount of knowledge.

The family's circumstances during Hill's first decade of life (1714–24) were limited: they ate, had a roof over their heads, but there were funds to educate one son only – the eldest, Theophilus Jr. There was no residue for luxury. Theophilus Jr was educated outside his home and matriculated at Cambridge University. But no university education – then crucial for the formation of a gentleman – awaited John: a situation that hurled him into anxiety far more than was typical for second sons.²⁹ For John was remarkably ambitious. The fact that he would be thwarted was a source of perpetual disaffection; insufficient to prevent him from learning Greek and Latin at home, or to read and be verbally articulate, but sufficient to cause him to run away and join a troupe of itinerant players.³⁰ Class and curiosity were inseparable in his case: from youth onward he never uncoupled them.

The young Hill grew to be taller than father or brother; also handsome and poised, but affected and mannered, determined to become famous. Years later he would publish a short parody of Swift's *Tale of a Tub – A New Tale of an Old Tub: or, the Way to Fame* (London: R. Baldwin, 1752) – where he sets down rules to achieve this goal. Whether or not he took his own advice, ambition hounded him. He soon became disaffected with the troupe of actors, apprenticed himself to a London apothecary,³¹ and began to peddle pills and potions from whose earnings he lived. He also moved up the social ladder: from apothecary to self-styled 'doctor', from doctor to physician, from 'Dr Hill' to 'Sir John' via an old decoration by the King of Sweden to the Order of

He versified his view in *Stoic Philosophy; Or, the Praise of Poverty. A Poem* (London, 1720). For his father's influence and Hill's religion, or lack of it, see G. S. Rousseau and D. Haycock, 'Voices Calling for Reform: The Royal Society in the Mid-Eighteenth Century – Martin Folkes, John Hill, and William Stukeley', *History of Science*, 37 (1999), 1–30.

²⁹ For university education as the basis for membership, see Brockliss, *Calvet's Web*, 11–13.

³º See Rousseau, Letters and Papers, 155.

³¹ Edward Angiers; see 'Lists of the Society of Apothecaries: anno 1730' (Guildhall Library). Richard Palmer, librarian of Lambeth Palace Library, has recently identified a portrait displayed in Barbers Surgeon Hall London and attributed to Allan Ramsey as that of the young John Hill.



11.2 *The Tea Gardens, Bayswater Road.* Paul Sandby's engraving *c.*1785 of the gardens Hill built on the north side of Bayswater Road and the present junction with Queensway. Reproduced by kind permission of Professor G. S. Rousseau.

Vasa.³² He wrote prolifically, on diverse subjects, and lived fashionably and above his means. His contributions to botany were especially noteworthy: here he would have been remembered even if he had done nothing else.³³ He married twice, had six children, lived in considerable style with a coach and six and his golden cane, in the parishes around St James and Piccadilly. As ambition intensified, health declined. By approximately forty he was steeped in gout, probably caused by (what we would call) lifestyle,³⁴ which prompted him to leave fashionable St James and set up in rustic Bayswater where he and his second wife raised medicinal herbs, drank tea, and sold seeds and

³² See Rousseau, Letters and Papers, 182.

³³ For his enduring achievement, see B. Henrey, *British Botanical and Horticultural Literature Before 1800*, 2 vols (Oxford, 1975). Hill wavered on the then revolutionary bisexual classification but he came down on the side endorsing it; see F. A. Staffleu, *Linnaeus and the Linnaeans* (Utrecht, 1971).

³⁴ For the gout diagnosis, see R. Porter and G. S. Rousseau, *Gout: The Patrician Malady* (New Haven, 1998), 109–11 and 386 (index entries).



Portrait of John Hill as a young man. Half-length in grey coat, with blue waistcoat, white linen sleeves and stock, his tricorn hat under his arm. In a late-George III beaded frame. Attributed to Alan Ramsey (1713–84). The attribution to John Hill remains to be proved. Reproduced by kind permission of the Worshipful Company of Barbers.

specimens (Fig. 11.2). The enterprise paid off and earned him a second fortune following his journalistic one.35 Nevertheless, poor health hounded him and he died in 1775 at sixty-one. This is the potted version of his life. It begs the question, what was his life in curiosity? (Fig. 11.3)

³⁵ Hill sold them abroad, especially in North America, through overseas agents to whom he paid commissions.

The reply, in brief, is that he was a figure who had travelled widely within rural England to amass specimens for patrons. He is found, in 1738–40, at Goodwood House outside Chichester, the resident naturalist at the Duke of Richmond's country-house: acting on the Duke's courtly stage; falling in and out of love with actresses (Hill reached for high stakes when pursuing the illustrious Peg Woffington); collecting botanical specimens, shells, fossils and marbles; courting foreign princes and savants who visited Goodwood; being introduced to figures influential in the Royal Society such as Richard Mead; and aware that he required permanent patronage to complete this early success.³⁶ The first links between Hill and curiosity are thus established in two primary ways: through collecting and travel, and – more specifically in regard to the former – by collecting and narrating in some of the ways demonstrated by Neil Kenny in this book.

Richmond sent Hill on far-flung expeditions throughout England. Years later, when writing botanical books in the late 1750s and 1760s, Hill spoke from firsthand knowledge about 'the botanist's first impressions of a place': the botanist is likened to the pioneer who arrives in a remote locale and whose task it is promptly to survey the prospects on several fronts.³⁷ Often during those early years, in the 1730s and 1740s, Hill would ride horseback somewhere, canvas its possibilities for natural objects, and retrieve what he needed to his patrons.³⁸ If Nigel Leask's paradigm about the link between curiosity and travel is valid, especially for the way each reciprocally instils an aesthetic sense, then Hill stands out as representative. He never voyaged overseas – to the Levant, India, China or Africa – but was nevertheless a traveller-collector whose curiosity was fired up by geographical displacement.³⁹

This travel did not endure. Woffington spurned him, he annoyed Richmond, and the Court chafed, irritated by his mannerisms, for example, when he attacked their quondam visitor John Rich, another actor who had aroused Hill's jealousy. ⁴⁰ Impasse was reached, not entirely to Hill's dissatisfaction: he had larger aspirations than residence in a countryseat. The tactic of the budding self-publicist was also becoming evident. While at Goodwood he was hardly reticent to make himself known to visiting *curiosi* and other *savantes*, as well

³⁶ See T. J. McCann, The Correspondence of the Dukes of Richmond and Newcastle 1724–1750 (Chichester, 1984).

³⁷ J. Hill, Eden, Or a Compleat Body of Gardening (London, 1757), i-iii.

Found in his earliest surviving letters; see Rousseau, Letters and Papers, 7–33.

³⁹ Hill was hardly alone in his generation, or the one after his, for these tendencies; they reverberated to travel and collecting within the possibility, or lack of, geographical displacement; for commentary on these parallels in William Beckford, see, for example, A. Marr, 'William Beckford, Landscape Gardener' in D. Ostergard (ed.), William Beckford: An Eye for the Magnificent (New Haven and London, 2001) and, more generally, Leask, Curiosity, 'Curiosity and the Aesthetics of Distance', 23–32.

⁴⁰ When Rich refused to stage Hill's opera *The Rout, Hill attacked him in a penny-pamphlet* entitled *An Answer to the ... Lyes Advanc'd by Mr. John Rich, Harlequin* (London, 1740).

as exploit Richmond's prominent role within the Royal Society. Introductions were made, always with a view to patronage; Hill promptly paid his services to collect for Fellows of the Royal Society (FRS) such as the Catholic Lord Petre.⁴¹ By 1742–3 he had traded up to London, married a daughter of the steward of the Earl of Burlington,⁴² and began sorting his travel notes for a history of geology, which evolved into his annotated edition of *Theophrastus' History of Stones* (1746).⁴³ Within two years, by 1744, he formed a partnership with Emmanuel da Costa, the capable Sephardic Jewish naturalist who eventually became Secretary to the Royal Society.⁴⁴ Hill joined the 'Wednesday Circle' of Fellows organised by James Parsons: a group of prominent FRS actively engaged in collecting and classifying and writing up their results for the *Philosophical Transactions*.⁴⁵ So far the pattern resembles the routine curiosity of mid-century naturalists. But distinction of an unpredictable type lay around the corner (Fig. 11.4).

Hill was among The Royal Society's youngest, but hardly least memorable, Wednesday members. It then had several such subgroups, many of which functioned as informal networks for the acquisition of patronage in the Republic of Letters. It brought fellows into the home of an organiser who was typically older than they were and more established, clubs of 'gentlemen naturalists' who displayed their refined manners and practised accepted codes of patronage.⁴⁶ Parsons, their leader, was a *curioso* with a wide net: interested in the animal-vegetable-mineral kingdom as well as the origin of Indo-European languages and human deformity.⁴⁷ He was representative of both the Republic and the oncoming Enlightenment, if also less energetic than hyperactive Hill.⁴⁸ Here, in his house on most Wednesdays, Hill flourished for approximately a year, produced the second volume about the natural world

⁴¹ See Rousseau, Letters and Papers, 203 (index entries).

⁴² Susannah Travers, daughter of the steward of the famous Lord Burlington; the poet Alexander Pope immortalised him in the *Epistle to Burlington*.

Published by C. Davis it was the first of dozens of quasi-scientific books.

They were not friends in any sentimental sense; Hill was consumed by ambition which left him no time to cultivate friends; for their relation in the Republic of Letters, see G. S. Rousseau and D. Haycock, 'The Jew of Crane Court: Emanuel Mendes da Costa (1717–1791), Natural History and Natural Excess', *History of Science*, 38 (June 2000), 127–70.

For the 'Wednesday Group' in the context of Hill's early days in the Royal Society, see Rousseau, Letters and Papers, 203 (index entries). A 'Monday Group' also existed, which the doctor-poet Mark Akenside, author of *Pleasures of Imagination* (1744), attended. There is reason to think the genuine intellectual activity of the Royal Society then was conducted in these small groups rather than larger meetings of the whole society or in the discussion of papers published in the *Philosophical Transactions*.

⁴⁶ The day to day history of the Royal Society is being written by Professor Mordechai Feingold.

⁴⁷ He was also intrigued by anatomical hermaphrodites; see his *A Mechanical and Critical Enquiry into the Nature of Hermaphrodites* (London, 1741).

⁴⁸ See C. Preston's chapter in this volume for the relation of hyperactivity to the new curiosity.



11.4 The Coates-Vendramini engraving of Hill. Engraving of Hill made by Giovanni Vendramini from a painting by Francis Coates, a Royal Academician, *c*.1757. Reproduced by kind permission of Professor G. S. Rousseau.

(A History of Fossils, 1748), and courted other (usually aristocratic) FRS, such as the Dukes of Newcastle and Northumberland.⁴⁹ But the poseur and self-publicist wrecked the progress he was making towards patronage, as he had at Goodwood. He discredited himself by pretending to know all; humility and restraint were not words he could apply. The Wednesday members grew fed up (especially William Arderon the naturalist and Henry Baker, Daniel Defoe's son-in-law who had made genuine advances in perfecting the simple and compound microscopes). These 'Wednesday FRS' formed a cabal, which succeeded in ousting Hill and ensuring he would never be elected to the larger society. So much for patronage: rejection of this type was becoming a pattern of self-discredit Hill would follow over the course of his adult life.

This time the consequences were irrevocable. Rumour about the tensions within the Wednesday Circle spread; Hill soon found it impossible to locate any FRS willing to nominate him for election, his primary goal since coming up to London from Goodwood. FRS membership then held the only key for his securing patronage, finding sociability, and guaranteeing *entrée* for someone who was neither a propertied gentleman nor a university graduate. Bluntly put, whatever else the Republic of Letters then was, entry required a university degree (education), the endorsement of others within the Republic (patronage), and proven ability to function in the company of its members through travel, social networks and correspondence – hence its often vaunted sociability.⁵⁰ Hill lacked the first, failed the second (1741–8), and thus far (in 1748) demonstrated no success in the third. When, in January 1750, he craftily lodged his verbal bombshell on the doorstep of the Royal Society in Crane Court, he had rolled the dice forever.

This was a brilliant prose satire on the Fellows entitled *Lucina sine concubitu*: Lucina conceives without a man. Lucina is a young country girl who conceives *sans* impregnation. Hill fabricated her story out of (what we would call) genetic technology, for Lucina not only procreates without a man but also uses a machine that captures *animalcula* carried by the west wind. William Wollaston, a philosopher contemporaneous with Locke and Berkeley, claimed that these *animalcula* were 'the seeds of all future generations', dispersed by the wind throughout the world.⁵¹ Men inhale them, distil them in bodily digestion, and transfer them to women without having sexual intercourse.

⁴⁹ The Royal Society was then permeated with aristocrats, some of whom held only minimal interest in natural science.

For the Republic, see, as counterpoint to Brockliss's Calvet's Web, Ann Goldgar, Impolite Learning: Conduct and Community in the Republic of Letters, 1680–1750 (New Haven and London, 1995); for curiosity and truth, see S. Shapin, A Social History of Truth: Civility and Science in Seventeenth-Century England (Chicago, 1994); for its Grub Street components, E. A. Bloom, Joseph Addison's Sociable Animal (Providence, 1979).

W. Wollaston, *The Religion of Nature Delineated* (London, 1726) had often been reprinted by 1750.

Building on Wollaston's unlikely theory, Hill facetiously claimed he had invented an electrical machine (it was not true, of course), 'electrified to the nicest Law of Electricity', which captured these *animalcula* in flight. Once caught in the instrument, the 'little seeds' were inhaled by women, bypassing men, and then incubated in the female womb, thereby eliminating the age-old moral dilemmas associated with copulation, such as venereal disease, guilt over fornication and even the need for marriage. If not eminently 'curious' in the way the tale's narrator embeds nature and technology, it is at least highly imaginative for the plot of its satire and the demonstration of what an eighteenth-century *virtuoso* could conjure (Fig. 11.5).⁵²

Reviewers savaged *Lucina*, not least because Hill removed the pleasure from sexual intercourse and fatally separated sexuality and procreation. More locally, the Royal Society, Hill's primary target, now banned him from membership. The Anglican and Catholic Church responded as negatively, although it is hard to understand its logic that Hill's book would encourage women to dress and live as men so they could inhale the powerful atoms. Years after Hill's death in 1775, the satire continued to be reissued throughout the French Revolution and interpreted allegorically: Lucina now symbolising France, a country breeding monstrous new political forms of government without a male (France *sans* her partner allies).⁵³ By the 1790s *Lucina* was translated into several European languages, including Danish and Russian. Within one generation (1775–1800) Hill's reputation as a sexual and political devil sank to the bottom of the pit.⁵⁴

Lucina also became a bestseller impacting on the developing trade in erotica.⁵⁵ If it mocked in passing the curiosa felicitas – the studied expression – of the poets for its fakery, it also excelled in sharp Juvenalian bite. The transformation of this seemingly innocent satire into a European bestseller later in the eighteenth century is not a story that can be told here. It is sufficient to note that its publication finished off Hill's public career, at least for the short term, not merely by excluding him from the Republic of Letters, but in the more rudimentary search for patronage.⁵⁶ It also played a role in shaping his

⁵² See the discussion of Thomas Shadwell's *The Virtuoso* in Claire Preston's essay in this book; Hill clearly also belonged to that comic-farcical tradition. See also Paola Bertucci's essay in this volume for Jean Nollet's slightly earlier experiments with electricity.

⁵³ For its rapid translations in 1751–2 into French and Italian and its remarkable vitality as a bestseller in Europe 1770–1800, see L. S. Sbiroli, *Libertine o Madri Illibate* (Venice, 1989).

⁵⁴ Even in its first few years *Lucina* was reissued in huge print runs, one reason why so many copies in such different editions endure. But Hill could not have known what the destiny of *Lucina* would be after his death, or the numbers of its foreign translations. For its transformation into a European bestseller, see Sbiroli, *Libertine*.

J. Peakman, Mighty Lewd Books: The Development of Pornography in Eighteenth-Century England (Basingstoke, 2003) makes Hill one of her protagonists.

⁵⁶ A vivid account is found in correspondence of the Wednesday circle; see Rousseau and Haycock, 'Jew of Crane Court'.

Lucina sine Concubitu.

LETTER

Humbly address'd to the

ROYAL SOCIETY;

IN WHICH

Is proved by most Incontestible Evidence, drawn from Reason and Practice, that a Woman may conceive and be brought to Bed without any Commerce with MAN.

Ore omnes versa in Zephyros stant rupibus altis, Exceptantque leves auras, et sæpe sine ullis Conjugiis vento gravidæ (mirabile dielu) Saxa per, et scopulos et depressas convalles Diffngiunt, &c. VIRG. Georgic. 3.

Cur ego desperem sieri sine conjuge mater, Et parere intacto, dummodo casta, viro?

Ovid. Fast. 5.

Or as other Authors sing, The frolic Wind that breathes the Spring, Zephyr with Aurora playing, As he met her once a Maying, Fill'd her with thee a Daughter fair, So buxom, blithe, and debonnair. MILTON'S L'Allegre.

LONDON:

Printed; And Sold by M. COOPER, at the Globe, in Pater-noster-Row. 1750.

Title-page of John Hill, Lucina sine concubitu. A Letter Humbly Address'd to the Royal Society (London, 1750). Reproduced by kind permission of the Wellcome Trust for the History of Medicine.

curiosity for, and about, himself. Now, after two centuries, it is clear that *Lucina* was his most enduring literary leap: memorable for fierce, almost Swiftian, exposés of mindless 'experiments' performed by the FRS (hitherto his alleged brethren) and allusively pointing to individuals and lambasting them.

Within days of publication, word spread: the Society had been stung, Hill became *persona non grata*, his future publicly decreed. From now on success could only be as a company of one: alone, by dint of his own wit and energy, *sans* backing or patronage. He did not desist from searching but the attempts were futile. The financial implication for one who lived as lavishly as Hill was unmistakable. In 1750 he was thirty-six without a fortune – no land, house, or inheritance as a second son. His pen, even more than the ability to sell potions, would determine his niche. By 1760, however, the die was cast: he was firmly fixed, if notoriously so, in Grub Street. William Kenrick, then an imitator of Alexander Pope of dunciadic fame and author of Dunciads himself, put it this way in *Pasquinade* (1760):

All these [other dunces] the Sister Queens [Dullness and Pert], with Joy confess'd
For lo! their Essence glow'd in ev'ry Breast!
But *Pertness* saw her Form distinctly shine
In none, Immortal *Hill*, so full as thine. (211–14)

III

My purpose in this brief outline is not merely to situate Hill within late versions of *curiosities*, but to explain how he acquired his explicit profile (even if he acceded to it in part humorously) as some type of inexplicable marvel: hence lusus naturae. Some of the old cargo of seventeenth-century meanings as joke and play endured, as did the appendages of prodigy and wonder, but the new Georgian currency he displayed is decidedly negative: the pejorative sense that if man is the greatest 'wonder' of all then he is decidedly taking a turn for the worse. The acquisition also raises all sorts of questions about the ways Hill functioned within, and without, the Republic of Letters, especially by exploring how he remained for so long on its peripheries by bending their codes and practices to fit his own protean changes. Or, alternatively, to learn whether he played by different rules altogether. That is, to ascertain whether his case typifies the norm by succeeding through modification of its tenets, or whether he had never followed those customs, however loosely, in the first place. In this latter scenario, he charted his own way according to newfangled rules sui generis.⁵⁷

Ouestions about the public sphere, of the sort raised by Jürgen Habermas, should be asked here but there is not time or space to pursue them.

If Hill existed in a class of his own, then his case gains momentum for the progress of curiosity as well as the annals of eighteenth-century biography. Each, by now, has its accepted ethos and models, those of curiosity - our subject here – yielding useful results.⁵⁸ Barbara Benedict, for example, claims in her study that wonder manifested itself primarily in three proactive ways – by regulating, consuming and performing curiosity – and that the formation of any individual variety, such as Hill's was, was forged from the idiosyncratic blend of the three. It is a promising approach if somewhat neat in its trinity of symmetrical activities made to fit recent developments in Enlightenment studies. Nevertheless, and whether or not Benedict stands on solid ground, the strength of this approach demonstrates how emphasis given to one form of performative curiosity took an inevitable toll on the other. It also suggests that a lack of integration of the three in any particular biographical case had far-ranging consequences. Benedict never intended her model to be applied literally. Still, its concepts advance our understanding of a puzzling figure like Hill: his identity has remained so protean, resists definition to such degree that any model capable of shedding new light on his place in, or out of, the Republic of Letters is useful.⁵⁹

Benedict's model of curiosity also gives weight to the figure's *primary* activity or occupation: that is, what the figures *principally* do. This emphasis on primacy is problematic for figures in the Royal Society and Republic of Letters. As Laurence Brockliss has claimed in *Calvet's Web*, 'No one was simply an experimental philosopher or an antiquarian.' Nor was Hill. By the time he exposed the Society, he had been actor (Goodwood), opera librettist (*Orpheus*), pamphleteer (he had even reviewed a biography of the late Alexander Pope in 1745), antiquarian, botanist (collecting and publishing), projector (methods of seeding mosses artificially and ways of harnessing loam), medical commentator (he had already published a potted history of drugs and a treatise on plague and pestilential fever), and an antiquarian and was soon to be a novelist (he published his first novel, *The History of Mr Lovell*, in 1750).

These sobriquets are convenient for remembering what Hill did, but do not go far to explain the formation of his identity in comparison to others within the Republic of Letters. Nor is it helpful to affix labels such as Ancient, Modern or

⁵⁸ The main scholars writing in English are those listed in nn. 2 and 8.

⁵⁹ At the risk of repetition it is worth observing again that Hill has never been the subject of a full-length biography.

⁶⁰ Brockliss, Calvet's Web, 4.

⁶¹ J. Hill, Remarks on Squire Ayre's Memoir of the Life of Mr. Pope (London, 1745).

⁶² J. Hill, A Letter Concerning Windsor Loam, published by the FRS in their Philosophical Transactions, 44 (1746–7), 458–63 as further proof of their esteem of Hill at that time.

⁶³ A Treatise on the Plague and Pestilential Fevers (London, 1750).

Renaissance Man in the Enlightenment.⁶⁴ He was more modern than ancient, and there is something – a touch – of the Renaissance Man in his activities; but ultimately these labels obscure the point, as any close, microscopic analysis of his life demonstrates. More local sobriquets, such as Proteus and puffer, plagiarist (from the time in 1750 when his botanical works began to appear Hill continued to be charged) and publicist (his enemies especially failed to comprehend how Hill got himself 'talked about' so widely), describe his place more accurately. The reasons for his disparate activities have more to do, first, with boundless energy and, secondly, with his knack of advertising himself and getting himself talked about the town by Mi'lady this or Lord that. The combination was rather unusual at mid-century. It is difficult to think of any figures in London *circa* 1750 exceeding him in either realm: either in the sheer energy he poured into his ambition or the varieties of his self-puffery. These traits differ from Benedict's tripartite model and do not depend on the *number* of activities and occupations in which Hill immersed himself.

Few curiosi, as Brockliss has demonstrated, pursued one line. Inspect the lives of representative *virtuosi* then, *c*.1750, and you see how typical Hill is – he is merely more *extreme*: in his energy, application and risk-taking he exceeded their norms. The number of Hill's pursuits did not mark or brand his curiosity – his public behaviour did. Where his activity differed from others was in his intuitive ways to puff himself sans patronage (his patron, the Earl of Bute, first offered secure patronage and then withheld it, as we shall see below), and in his sheer degree of success followed by disaster. It was a remarkable pattern of luck and bust: seeming to succeed (1751–9) but eventually riddled with failure and shame (1760–75).65 His glorious decade in the 1750s augured success: someone without pedigree, university education or patronage who could reach the dizzy heights of fame and fortune. Even he was surprised; but by 1762 Lord Bute was out of office, Hill's health failed, and he could no longer feed his six children and live in any style. He died at 61 riddled with gout, disappointed, his twenty-six-volume Vegetable System having broken the bank of his personal finances, which had been dire anyway. What happened to his versions of curiosity during these contrasting decades of near-greatness and neglect followed by refashioning and disappointment? What was the curiosity of the younger man who had shown such enthusiasm for finding and describing the objects of the natural world: the specimens and fossils his father had taught him to collect as a boy? (Figs 11.6a–c)

⁶⁴ I explored this approach in 1978 (see n. 10) and found it more inhibiting than liberating; multi-disciplinary activity in the Republic of Letters was the norm, not the aberration – something other than it marked Hill.

⁶⁵ Lady Henrietta Hill's memoir, An Address to the Public: by the Hon'ble Lady Hill; Setting Forth the Consequences of the Late Sir John Hill's Acquaintance with the Earl of Bute (London, 1788), also charts phases of his life.

AGENERAL

NATURAL HISTORY:

. O R,

NEW and ACCURATE

DESCRIPTIONS

OF THE

Animals, Vegetables, and Minerals

Of the DIFFERENT

PARTS of the WORLD;

ARM MILLIAM TO THE BOOK OF A STATE OF THE ST

Their VIRTUES, and USES as far as hitherto certainly known, in MEDICINE and MECHANICS:

By a GENERAL REVIEW of the Knowledge of the Ancients, and the Improvements and Discoveries of later Ages in these Studies.

INCLUDING

The HISTORY of the MATERIA MEDICA, PICTORIA, and TINCTORIA of the Present and Earlier AGES.

AS ALSO

OBSERVATIONS on the neglected Properties of many valuable Substances known at present; and Attempts to discover the lost Medicines, &c. of former Ages, in a Series of Critical . Enquiries into the MATERIA MEDICA of the Ancient GREEKS.

WITH

A great Number of FIGURES, elegantly Engraved.

By JOHN HILL, M.D.

Acad. Reg. Scient. Burdig. &c. Soc.

LONDON:

Printed for THOMAS OSBORNE, in Gray's-Inn, Holbourn.

11.6a Title-page of John Hill, A General Natural History (London, 1751). Reproduced by kind permission of Professor G. S. Rousseau.

SLEEP
OF
PLANTS,
AND
CAUSE OF MOTION
IN THE
Sensitive PLANT,
EXPLAIN'D.

By J. HILL.

In a LETTER to

C. L I N N Æ U S,

Professor of Botany at Upsal.

LONDON:

Printed for R BALDWIN in Pater-nosterRow. M.DCC.LVII.

11.6b Title-page of John Hill, *The Sleep of Plants* (London, 1757). Reproduced by kind permission of Professor G. S. Rousseau.

THE

VIRTUES

WILD VALERIAN

IN

NERVOUS DISORDERS.

WITH

DIRECTIONS for Gathering and Preserving the ROOT;

AND

For chusing the right Kind when it is bought dry.

SHEWING THAT

The Uncertainty of Effect in this valuable MEDICINE, is owing to Adulteration or ill Management.

By JOHN HILL, M.D.

Illustrated with Figures; Exhibiting the true and falle Root, and the entire PLANTS.

LONDON:

Printed for R. Baldwin, in Pater-noster-Row, M. DCC. LVIII. [Price One Shilling.]

11.6c Title-page of John Hill, The Virtues of Wild Valerian (London, 1758). Reproduced by kind permission of Professor G. S. Rousseau.

IV

The third point about the bifurcation of curiosity's ethos during the eighteenth century and the emergence of new forms remains.⁶⁶ This was the view that a particular self was as mysterious, and as worthy of exploration, as natural objects and places had been. The view had a long, if discontinuous, history. Plutarch, for example, had quipped in his famous essay on curiosity in the Moralia that 'curiosity ... is a passion for learning about other's people's troubles.'67 He pronounced that ultimately it is best configured as 'a disease intimately connected with envy and malice'. Sixteen centuries later nothing could more aptly have described our 'Protean' lusus naturae than this grip on curiosity. Nevertheless, the restoration of the self as a major source of curiosity in the later eighteenth century followed on generations when its attention had been focused on things: objects, instruments, remains. Poets and philosophers labelled the new version Sensibility or Romanticism; by the turn of the nineteenth century these had become fully grown ethics in Britain and Europe. Vis-à-vis Hill, the progress of turning inward amounted to the neglect of curiosity for natural objects, and a redirection of that curiosity towards himself.

Two generations later, in 1800–1830, one has little difficulty understanding Romantic thinkers (for example), whose greatest interest lies in *them*, that is, those who make *themselves* their life's work. *Circa* 1750, the same propensity exists, but without context and status except for fictional figures in novels and on the stage. Yet by the early nineteenth century it is commonplace to invoke the concepts of self and personality to describe artists and scientists. Two generations earlier these terms were used guardedly, often with apologies; cultural historians aware that they are holding up anachronisms to be challenged. There is little risk, for example, in claiming that Samuel Richardson's fictional character Lovelace in *Clarissa Harlowe* and Laurence Sterne's *Tristram Shandy* are – almost narcissistically – interested in *themselves*: Lovelace's lust motivated by injured pride, Tristram's self-engrossment by his

⁶⁶ Here I am indebted to Daston and Park, *Wonders*, but adopt a different approach to their 'bifurcation', that is, the rise of the *self* as another source of curiosity. It is also useful to notice how the reviewers of Barbara Benedict's book (see n.2) comment on the bifurcation of curiosity; for example, D. P. Gunn notes that eighteenth-century curiosity 'bifurcates into applicated categories of investigation of nature, the display of male control, and derogated categories of sexual or impertinent weakness'. See his review in *Eighteenth-Century Fiction*, 16, 1 (2003), 128–30.

⁶⁷ D. Russell (ed.), *Plutarch's Moralia* (Oxford, 1993), 193, ch. 9 entitled 'Curiosity', section 515: i. This remarkable essay was much read and commented upon in the ancient world but not afterwards. It was anonymously published in an English translation in 1598 as *Elizabeth's Englishings* [sic] of ... *Plutarch, De Curiositate* (1598), which the Early English Text Society reprinted with commentary in 1899. The scholar Johannes Patousas later published it in a new Greek translation in 1744, a copy of which is in the British Library, but I have no evidence that this version, or other parts of the *Moralia*, were much read in the mid-eighteenth century.

quest to discover who he really is. Yet it would be quite another matter to claim that Richardson and Sterne were themselves biographically self-consumed in this way, engrossed in themselves as sources of boundless, almost morbid curiosity. My claim then amounts to this: Hill turned his remarkable degree of curiosity for the external things of this world inward to himself. In this sense he is a transformative figure in the unfolding of this ethos of curiosity.

Hill's successes and failures abetted the transformation, their intensity lending him a novel profile. We have already described *Lucina*. It was succeeded by another swipe at the Royal Society, which exposed the Fellows less tangentially and took the form of 'three letters' written by a foreign 'nobleman' travelling through England, writing to 'a person of distinction in Sclavonia'.⁶⁸ Hill's nobleman-narrator visits the Royal Society and is shocked, as Lemuel Gulliver had been a generation earlier, to discover such abuses of power and corruption of learning. Any FRS who missed the point of Hill's satirical allegory in *Lucina sine concubitu* could not fail to grasp it here. No key was necessary to decode the *Dissertation*, the effect of which on Hill's status was negative. Disaster did not come at once. Good luck, combined with energy and the most ingenious self-publicity, intervened and Hill would still have another good decade, impossible as this seems in the light of his suicidal act of lambasting the Society (Figs 11.7a & b).

As 1751 commenced, ironically Hill's annus mirabilis, we find him determined to succeed despite the odds. He keeps a vigilant eye open for a patron about the Town: always on the lookout for new ideas and projects that can produce monetary profit or further fame. Unbroken by the disappointment of the Royal Society he lunges ahead despite adversity. His wife has died. He is rearing two children on his own; without financial reserve he must provide a cash flow.⁶⁹ Naturally he turns to areas where income is promising: as apothecary, actor and author. The process, in 1745–50, of writing half a dozen books in natural history, and penning three satires, armed him well enough to enter Grub Street with confidence. He now thought of turning novelist as well. Shortly after the publication, in 1748, of Cleland's Memoirs of a Woman of Pleasure, Hill read it and derived an idea to imitate it. Then, in the autumn of 1750, Hill heard, or read about, novelist-author Tobias Smollett's interviews with Frances Vane, the courtesan whose memoirs Smollett was including in his next novel, The Adventures of Peregrine Pickle. Devilish Hill beat Smollett to publication by bringing out The History of a Woman of Quality.70 Hill was also drafting two

⁶⁸ A Dissertation of Royal Societies (London, 1750).

⁶⁹ Susannah Travers' date of death is unknown but had occurred by 1750; she bore him two children.

⁷º Mary Cooper printed it in January 1751; it was reviewed in February in *Gentleman's Magazine*, 21, 96. Neil Guthrie's view that Cleland wrote the *Memoirs* is based on conjecture; see N. Guthrie, 'New Light on Lady Vane', *Notes & Queries*, n.s. 24, no. 49 (2002), 372–8.

es consistent

A

REVIEW

Of the Works of the

Royal Society of London;

CONTAINING

ANIMADVERSIONS on fuch of the Papers as deserve Particular Observation.

IN EIGHT PARTS:

Under the several HEADS of

ARTS,
ANTIQUITIES,
MEDICINE,
MIRACLES,
MINERALS.

By *JOHN HILL*, M. D.

Acad. Reg. Scient. Burd. &c. Soc.

Thy giddy Dulness still shall lumber on, Safe in its Heaviness can never stray, And licks up ev'ry Blockhead in its Way.

DUNCIAD, Book III.

LONDON:

Printed for R. GRIFFITHS, at the Dunciad in St. Paul's Church-Yard, 1751.

11.7a Title-page of *A Review of the Works of the Royal Society of London* (London, 1751). Reproduced by kind permission of Professor G. S. Rousseau.

novels that would appear this year (1751) and three works of natural history. But it was his quondam appointment as the author of a series of bi-weekly editorials in the *London Daily Advertiser* that most astonished his opponents and – finally – stung them into the promise of revenge.



Benjamin Wilson's portrait of Dr James Parsons (1705-50), one of the learned FRS attacked in A Review of the Works of the Royal Society of London. Reproduced by kind permission of Professor G. S. Rousseau.

We must not, however, lose sight of the ethos of curiosity in relation to Hill despite his peaks and troughs. The editorials he wrote for three years made him a household name; also persuaded him that if he persisted, glory could come his way without patronage. The mechanism by which he gained entrée to London's leading newspaper is murky. Hill had probably met Samuel Richardson who – by 1750–51 – was a famous author living in semiretirement. Richardson was consulted, it seems, by the editors about a new column dedicated to topics of current interest: political, economic, military, moral. He apparently suggested Hill.71 The columnist's fee promised was to be high, calculated to make the newspaper rich by adding readers who would buy it for these 'inspectatorial' essays. Hill's essays began to pour forth on 5 March 1751, and appeared every Tuesday and Friday until the spring of 1753. Their contents dealt with didactic topics and displayed an expansiveness and freedom of mind. He pronounced on curiosity and wonderment, claiming that they thrive on persons as much as objects.⁷² The essays' model, which followed on from the success of the earlier *Spectator* and *Tatler*, was still applicable in the 1750s, and practised in widely read essays by Samuel Johnson in *The Rambler* and *Idler*. Hill signed his columns 'The Inspector', a name which soon attached itself to him ('The Inspector' and 'Inspector Hill'), for his uncanny ability to ferret out moral truths of the time, as well as gossip in the Republic of Letters. Each editorial focused on one subject taken from the realm of culture: the arts and sciences, religion and society, commerce and war. His columns whetted the readerly imagination of most gentlemen and were scanned by members of the Republic of Letters. But only an outsider could have written with such panache and impunity. He had nothing to lose.⁷³

Anticipator that he was, can he have guessed what was to come in the next twenty years?⁷⁴ Hill no longer travelled: hence models of 'aesthetic curiosity' predicated on travel, such as the one advanced by Nigel Leask, lose consequence for him after the 1750s.⁷⁵ Indeed, no model or paradigm perfectly suits Hill after the appearance of *Lucina sine concubitu*. *Distance*, as Leask has shown, had been the basis for the aesthetic model; yet geographical distance was becoming absent from his consciousness. The more familiar the world about him became, the closer its distances seemed, yet he himself impressed his contemporaries as strange and remote. Not strange in any pathological sense, but remote in the chemistry of his personality. Compare Hill to earlier *virtuosi* and the point begins to make itself.

For example, Athanasius Kircher (1602–80) and Englebert Kaempfer (1651–1716), a generation after Kircher, neither of whose careers in curiosity need

⁷¹ The evidence is presented in Rousseau, *Letters and Papers*, xxiv, n. 13.

⁷² See, especially, *Inspector*, 5 (11 March 1751).

⁷³ The approach to 'outsiders' taken by Hans Mayer in *Outsiders* (Cambridge, 1984) might yield rich results for Hill.

⁷⁴ A few years later Hill suggested that excessive smoking of tobacco causes cancer; see Cautions Against the Immoderate Use of Snuff (London, 1759) and D. E. Redmond's assessment in 'Tobacco and Cancer: The First Clinical Report, 1761', New England Journal of Medicine, 282 (1970), 18. A generation later Hill's caution was endorsed; see T. Fowler, Medical Reports of the Effects of Tobacco (London, 1785).

⁷⁵ Leask, *Curiosity*, ch. 1, especially 23–9.

be restated here except to note how each differed significantly from Hill.⁷⁶ Kircher, unlike Hill, fits the paradigm that 'the curious way of life centred on the study or library.'77 Space and physical setting were vital for Kircher. His spaces after returning from travels studiously excluded collectors who were merely in the field: archaeologists, botanists, fossilists, whose sciences were then gradually developing. In enclosed spaces, on view to visitors, earlier curiosi such as Kircher assembled and displayed their marvels gathered from around the world; a century later, Hill and his brethren were amassing specimens for sale rather than personal display. Dutch naturalist Kaempfer, on the other hand, was pre-eminently a supplier of goods from Japan.⁷⁸ This commercial component is definitively what stimulated Jonathan Swift to satirise him mercilessly in *Gulliver's Travels* (1726). Yet Swift's satire reveals as much about the Augustan ethos of curiosity – rarely commented upon – as the transformation of patronage in the aftermath of the Stuarts and the new Whig commercialism.⁷⁹ Put crudely, Kircher was a gentleman who indulged his wonder, Kaempfer a collector who worked primarily for profit. The difference was monumental, for curiosity as well as in contrast to 'Proteus' Hill.

Hill was a youth when Kaempfer died and Swift mounted his massive Gulliverian satire. The practice of indulging curiosity for profit had already begun its upward path, and was soon to become the norm. The impact of this trajectory of curiosity and selfhood combined was less clear as each had been thought to develop independently. As private cabinets, displayed in the grandeur of the library and study, gave way to collections obtained through patronage for the purposes of profit, the role and identity of the collector changed. For one thing, Hill had to be selected by the patron from an army of competitors, as he painfully learned; for another, those in search of patronage learned to mute their thirst for profit and apply complex public codes of personal action and public behaviour. The collector's breeding and background, especially a university degree, were crucial requirements rarely waived. It is precisely in this sphere that Hill's curiosities begin to appear suspicious.⁸⁰

⁷⁶ Kircher's *De natura musica* (1669) approaches music's stirring of the soul, in part, through the vocabulary of curiosity. In the same decade Marc de Vulson's *Court of Curiositie: A Treatise of Nocturnal Dreams and Visions and a Treatise of Physiognomie* (London, 1669) shared a similar vocabulary. See Maristella Casciato et al. (eds), *Enciclopedismo in Roma barocca: Athanasius Kircher e il museo del Collegio Romano, tra Wunderkammer e museo scientifico* (1986).

⁷⁷ See K. Whitaker, 'The Culture of Curiosity' in N. Jardine and E. Spary (eds), Cultures of Natural History (Cambridge, 1996), 90.

⁷⁸ Kaempfer's travel books retain the old vocabulary of wonder and still occasionally invoke the old trope of *lusus naturae* as play or joke.

⁷⁹ The dislocations of the South Sea Bubble throughout the 1720s cannot be overlooked from this discussion and would, of course, be given more attention in an extended comparison.

⁸⁰ A survey of Hill's relation to his potential patrons (that is, the great Whig lords, Newcastle, Northumberland, Macclesfield, et al.) would demonstrate how he was eliminated in each case,

One gauge is the sheer volume of satire, printed, visual and even in gossip, to appear from the moment he entered the public sphere. Cartoons and caricatures abounded, by major and minor artists, from unknown drawers to mighty Hogarth who placed Hill in his 1751 'Beer Street' – Hill's books are tied together in a bundle in the lower right-hand corner of the engraving (Fig. 11.8). By the time Hill was securely placed in Grub Street in 1751-2, this volume of pictorial satire accelerated. Charges of ignorance, lapses in decorum, claims of collusion and self-publicity led the list: the main cry being that he was no more than a dabbler in everything he touched – jack of all trades, master of none.81 The attacks were often configured in terms of excess: that Hill was practising overload, taking on too much, pretending he knew more than he did, earning too much money, living too high on the calf for someone of such modest origins. Such a self-made publicist ought to have expected this rough treatment. Still, the attacks issued: that he pretended to be author, apothecary, botanist, chemist, collector, geologist, journalist, novelist, quack, naturalist – all at once.82

Attacks revolved around the self-publicist and alluded to his tainted sense of curiosity: the more he puffed himself, the greater his visibility and attendant rewards in fame and finance – punctuated by charges of impostor. The more famous he grew, the more exacerbated the catcalls: Hill the figure rather than the objects he collected or described. An outsider, it mattered little whether he *deserved* the limelight or not. 8_3 He could still survive in Grub Street, make money by using his medical background, 8_4 and live in style without a patron. When Horace Walpole commented that Hill 'was now the highest paid journalist in all England', he was not merely referring to the stupendous sum of £1500 as Hill's annual earnings, but to Hill's uncanny fame. 8_5 The two – fame and riches – proceeded in tandem and were confirmed by the attention paid him in public pictorial satire. Further proof arose when Hill became the subject of whole poems, not merely fragments or vignettes. Christopher Smart, the satiric heir of Alexander Pope, published, in 1753, a scathing dunciadic

except Lord Bute's, on grounds of breeding and behaviour. The difference was that 'Botany Maecenas Bute' was prepared to overlook them out of his love of botany.

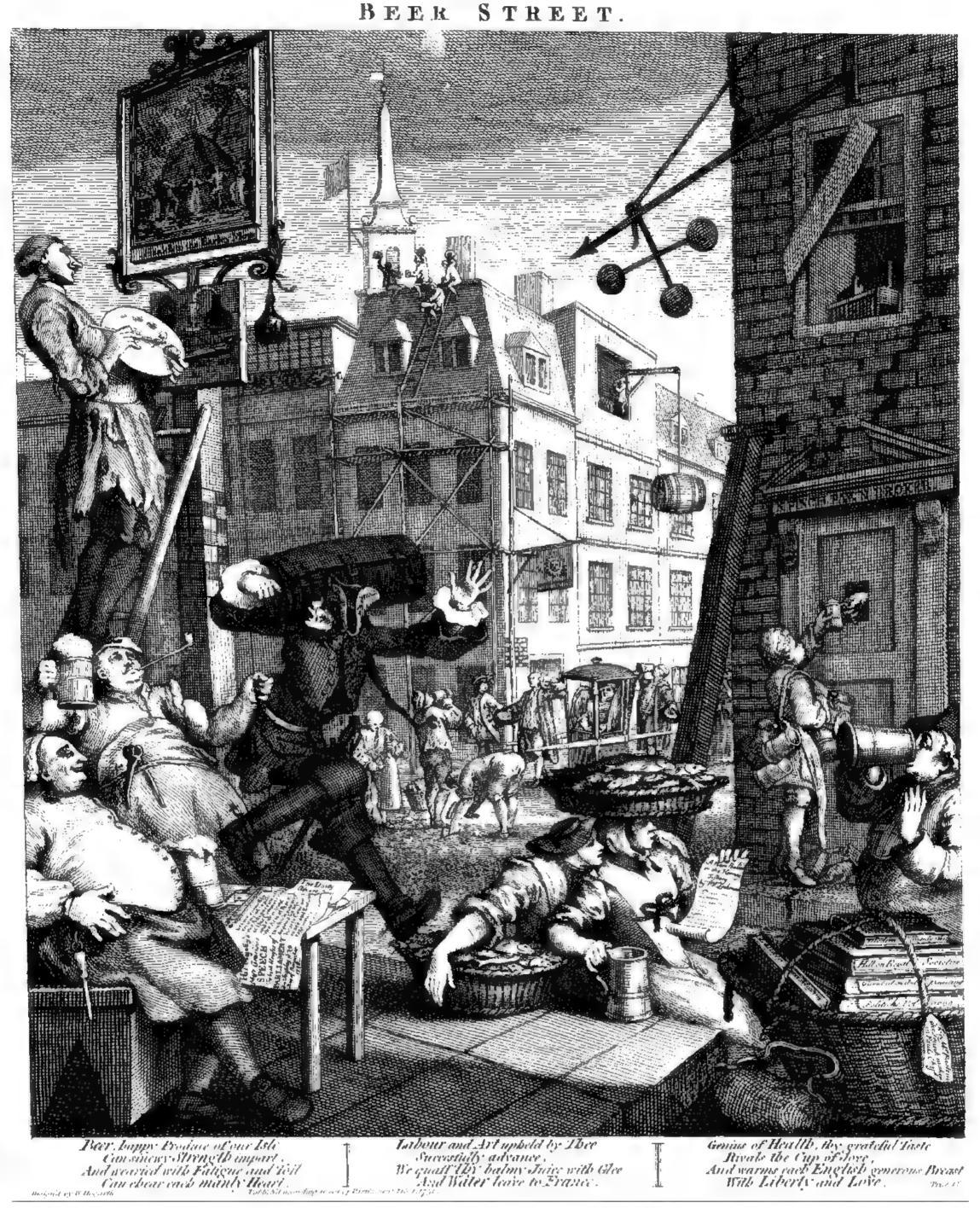
Ever since Pepys' Restoration, this had been the charge against the *virtuosi*, and it endured throughout the next century; for the tradition, see the classic article by W. E. Houghton, Jr, 'The English Virtuoso in the Seventeenth Century', parts 1 and 2, *Journal of the History of Ideas*, 3, 1 (January 1942), 51–73; 3, 2 (April 1942), 190–219; and M. H. Nicolson's annotated edition of Shadwell's play, *The Virtuoso* (Lincoln, NB, 1968).

⁸² For excess in these charges, see Rousseau and Haycock, 'Jew of Crane Court'.

⁸³ Virtually all major and, now, minor British authors (Defoe, Addison, Pope, Johnson, Smollett, et al.) have been studied for their careers in Grub Street, but not Hill.

⁸⁴ It is false to consider Hill a one-track quack; he gained income from all sorts of pursuits: selling medicinal plants, publishing medical tracts, administering to occasional sick patients, journalism, and so on.

Walpole's Correspondence, 50 vols (New Haven, 1937–84), xvi, 42.



William Hogarth, Beer Street, showing Hill's A Review of the Works of the Royal Society of London (1751) in the basket in the lower right-hand corner. Reproduced by kind permission of Professor G. S. Rousseau.

lampoon, whose mock-epic hero is none other than 'Hilario', aptly entitled The Hilliad (Fig. 11.9).86 When Smart had himself painted in his opulent, booklined set of rooms in 1754, not yet having left Pembroke College Cambridge

⁸⁶ For the nickname and pseudonym 'Hilario', see the article 'Libertine' in Magazine of Magazines (1751).



11.9 Christopher Smart in his Study at Pembroke College, Cambridge, *c*.1754 with the copy of his poem *The Hilliad* (1753) on his bookshelf. Reproduced by kind permission of the Master and Fellows of Pembroke College Cambridge.

and gone down to Grub Street London, he instructed the painter to highlight a crucial detail among the six books he chose to sit on his table: a slanting copy of *The Hilliad* nestled, rather ambivalently, between Homer on the left and Aesop's Fables on the right. A decade later satirists Charles Churchill in *The Rosciad* (1763), and Cuthbert Shaw in *The Race* (1766), produced others. All

portrayed Hill as 'Proteus': chameleon-like, slippery and obsessively curious about others, his true genius the ability to refashion himself into them. If the question we are likely to ask of Hill now is, 'why did he become so interested in himself?' the question we are likely to ask of his contemporaries is, 'why were they so interested in him?'

\mathbf{V}

His image as 'Proteus' provides many leads. *Au fond* Proteus was the basis of his status as *lusus naturae* but now also raises questions about integrity and imposition, as well as the personal psychology of the *curiosi*, within and without the Republic of Letters, in an era pivotal to the new science of psychology. From Ovidian times, Proteus had been vividly described in the *Metamorphoses* and its Renaissance imitations. By the mid eighteenth century, the new ability of small chunks of society to recast their essential public 'selves' was normatively viewed with admiration and wonder, provided such refashioning was not based on refuge and disguise. However, Locke's epistemology of the self and – later on – Scottish Common Sense combined to interrogate the substratum of protean refashioning more scrupulously than hitherto. Curiosity's ethos now (after mid-century) penetrated into the interior realm: the mind of a child (as it was being reconstructed in the late Enlightenment) or imagination of a genius (as Romantic theory sculpted it) could constitute cause for wonder equal to that for fossils and shells.

This new curiosity for the interior self had taken almost a century to develop. ⁸⁹ The public and private dimensions were concurrently separated out and contested, especially in line with the codes of enlightened gentlemen securely in the Republic of Letters. The public line – as we have seen – was the promotion of learning, exchange of information, sociability and a penchant for travel, all with an eye towards progress. The rhetoric of republicans in Hill's time was civic-minded: a concern for the welfare of civilisation through the preservation of objects and specimens, for posterity rather than merely

⁸⁷ The growth of discourses about the 'psyche' in the eighteenth century filtered into these uses of curiosity; see Rousseau, *The Ferment of Knowledge*.

For Proteus as the main trope of refashioning, see, for example, Richard Head (1637?–86), Proteus Redivivus: the Art of Wheedling or Insinuation, in General and Particular Conversations and Trades. Together with the several actions, inclinations and passions of both sexes, and of all their professions and occupations. Discovering their many tricks and designs to self-advancement, though by indirect wayes and methods; fitly suited to these times, to prevent the vertuous [sic] from abuses, and to detect the enormities of the vitious (London, 1684). A few years later William Wake, then Archbishop of Canterbury, located Proteus' modern transformations as specifically mental; see his well-published sermon entitled Proteus, or, The Change of Mens [sic] Minds (London, 1719).

⁸⁹ For aspects of the intellectual background, see S. Cox, *The Stranger Within Thee: Concepts of the Self in Late Eighteenth-Century Literature* (Pittsburgh, 1980).

calamities of the present age.⁹⁰ Despite minor alterations, and what Daston and company have termed bifurcation, these remained the insignia of curiosity at mid-century as the Enlightenment was fully under way in England and Scotland, France and the Continent. Provided republicans demonstrated these virtues, no one was suspected of an ulterior motive. But 'Proteus', especially a self-proclaimed Proteus like Hill, could not be trusted. Such a chameleon seemed to carve out the heart of respectable curiosity.

Hill's alterations proceeded intuitively. Furthermore, the particularised 'protean' image he cultivated struck most of his contemporaries as vulgar: by turns they were shocked or outraged. Although contemporary collectors had also fashioned their public images, Hill was no ordinary collector, nor did he present himself as such.⁹¹ His literary recognition, especially as 'Mr Inspector', exalted him beyond that rank. By 1761, when he turned forty, he had already published novels, tracts satirical and medicinal, including the notorious *Lucina* that had hurled him into public scrutiny, and his widely read *Inspector* columns, all sufficient to render him a household name. Had Hill presented himself more modestly – as someone of innate gifts who had been hampered by modest origins and the crushing lack of a university education – he might have been accepted by dint of sheer energy. But the reality was that he boasted more than ever; in any sphere pertaining to *him*, he was larger than life. Indeed, puffery and excess could have been his mottoes.

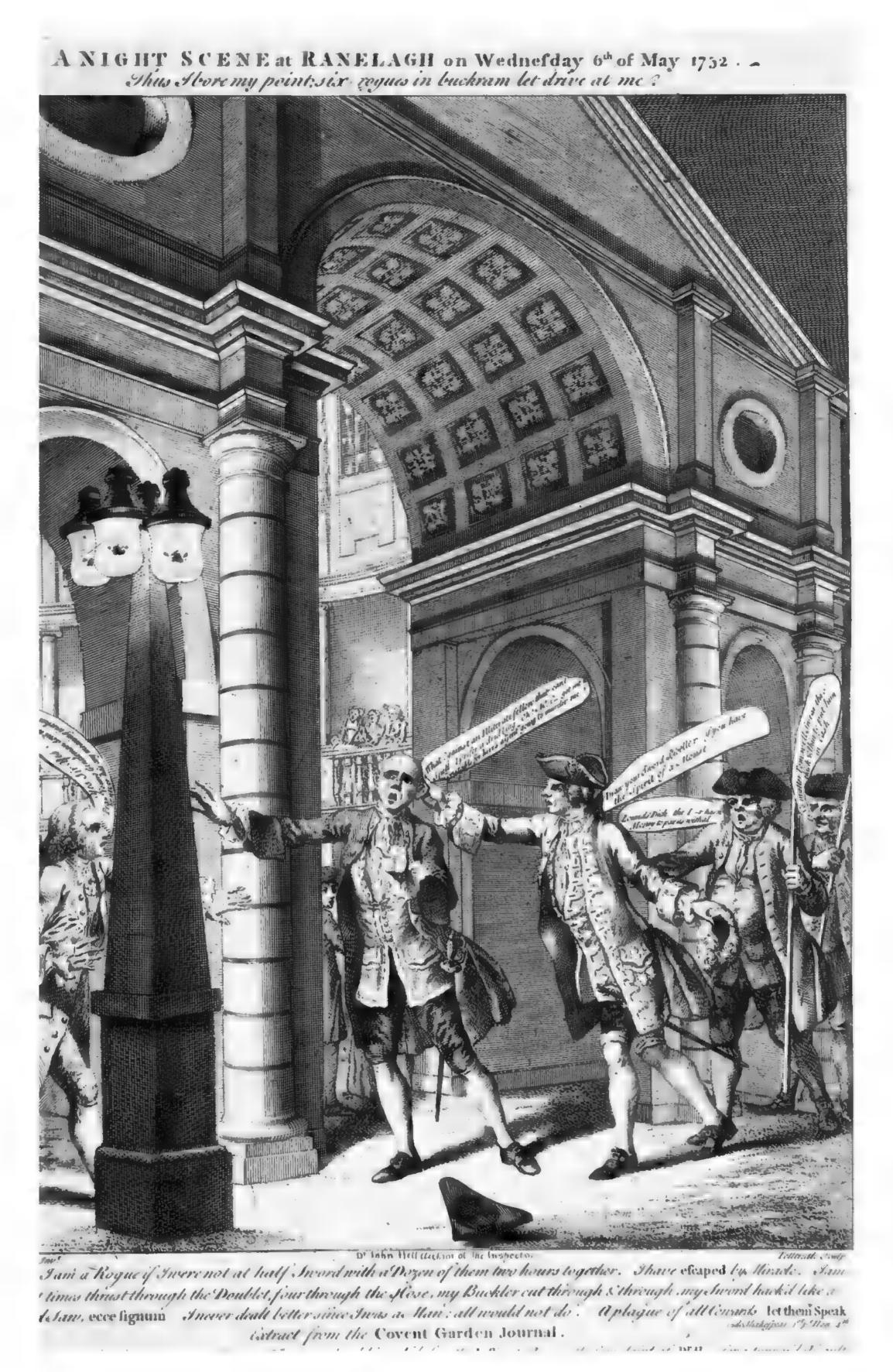
What drove him? It is not a question routinely asked of the *curiosi* except in the terms of collective sociability. Instead, the *curiosi* are assumed to be energetic for the above reasons – to advance knowledge, rather than aggrandise or puff themselves. But Hill's versions were riddled with miscalculations even if they, paradoxically, brought him a decade of glory. For example, one night in 1752 at Ranelagh, he was caned by a young Irish buck called Mountefort Browne who Hill criticised in the *Inspector* columns. Hill gave out that he was seriously hurt and required medical attention. Speculation and gossip ensued; the *Inspector* columns ceased during convalescence (Fig. 11.10). Whatever the reality, the upshot was further publicity. Strictly, this was not political image-making but scrupulous calculation in the strategies of puffery. Nothing Hill produced, certainly not his writing, was of sufficient merit to suggest it would endure. Nevertheless, the public's curiosity about him intensified. He was mentalised as an object of wonderment – *lusus naturae*.

My own view, as his biographer, is that this craze for publicity psychologically energised him and, simultaneously, contributed to his poor health, especially

⁹º See Brockliss, *Calvet's Web*, ch. 1, for these values and the differences of Enlightenment and the Republic of Letters.

⁹¹ For the image of collectors, see Findlen, *Possessing Nature* and, for the *lusus naturae*, Findlen, 'Jokes of Nature'.

⁹² For the affair, see Rousseau, Renaissance Man in the Eighteenth Century, 74–5.



Caricature of John Hill at Ranelagh. Engraving of a Night Scene at Ranelagh on Wednesday 6 May 1752, showing Hill and Mountefort Brown at blows. Reproduced by kind permission of Professor G. S. Rousseau.

as chronic gout. Simultaneously it depleted him. But it would be wrong to think of Hill in terms of such anachronistic categories as, for example, 'the culture of narcissism' (in Christopher Lasch's phrase).⁹³ This 'Proteus' was something else. His degree of psychological (and possibly sexual) promiscuity must also be consulted: he had difficulty confining himself to one vocational pursuit or field of interest. His sexual activity remains murky: after the death of his first wife, he became a roving bachelor and secured a mistress known as 'Diamond'.⁹⁴ Then, in 1753, the year when his *Inspector* essays culminated, he married a minor Irish aristocrat, Henrietta Countess of Ranelagh.

If Hill's promiscuity was temperamental and intellectual rather than psychosexual, it was also tied to his protean refashionings. The American literary critic Leslie Fiedler has observed that 'curiosity is repressed sexuality'; Denis Porter has said that psychoanalysis is invaluable in understanding the relation of curiosity to travel because 'not only does Freud's general theory furnish concepts for an understanding of the psychic operations occurring in travel writing, but [because] he himself also reflected ... on travel itself.'95 Neil Kenny proceeds further, commenting that curiosity's 'sexual connotations ... continued to be strong in the early modern period'.96 All three invite us to consider the 'curious' in relation to their sexualities, and Hill's biographical case strengthens the link. He himself commented frequently in the *Inspector* columns on 'curiosity' in this sexual way. Kenny's approach is lexical rather than psychological. By tracing words and their connotations he reminds us of 'the extraordinary suspense produced by the highly charged term "curiosity" in the very last words of volume 8 of Laurence Sterne's Tristram Shandy (1759–67).'97 This is the charming scene where Tristram's parents – Walter and Elizabeth – have followed Uncle Toby to the 'very place' where he has been set up to woo the lusty Widow Wadman. Mrs Shandy, who speaks only four times during the course of Sterne's epic novel, claims she would like 'to look through the key-hole out of *curiosity'*.98 *Curiosity* the lady may call it, as had Hill's 'modern fine Lady' above, but her ocular thrust nonetheless – as Kenny notices – amounts to sexual desire emanating from feline eyes. Mrs Shandy denies her motive but the reader knows better.99 The lineage forward to the

⁹³ C. Lasch, The Culture of Narcissism (New York, 1979).

⁹⁴ Hill identifies her as 'Diamond', one of the fashionable Covent Garden whores, in *Letters to a Lady, with her Genuine Answers* (Dublin, 1752). For the cachet of these courtesans, see E. J. Burford, Wits, Wenchers and Wantons: London's Low Life – Covent Garden in the Eighteenth Century (London, 1986).

⁹⁵ See L. A. Fielder, Freaks: Myths and Images of the Secret Self (New York, 1978), ch. 4; D. Porter, Haunted Journies: Desire and Transgression in European Travel Writing (Princeton, 1991), 13–14.

⁹⁶ Kenny, Curiosity in Early Modern Europe, 167–8.

⁹⁷ Kenny, Curiosity in Early Modern Europe, 168.

⁹⁸ L. Sterne, *Tristram Shandy*, viii: 158; the italics are Sterne's.

⁹⁹ Here I omit two 'further twists' in the sexual play underpinning this use of curiosity recognised by Kenny, *Curiosity in Early Modern Europe*, at 168. For Hill's 'modern lady', see n. 14.



John Hill and the Gypsy Woman. Caricature of John Hill and the Gypsy Woman, Virtue Hall, c.1753. The five personalities from left to right are: Elizabeth Canning, Henry Fielding, the Lord Mayor of London, Dr Hill, and Mary Squires the so-called 'Gypsy Woman'. The caricature invites the viewer to ask who is the villain and who the victim? Reproduced by kind permission of Professor G. S. Rousseau.

pinhole curiosa of Victorian erotic and pornographic books, until recently locked up in the labia of libraries, was direct.

Hill's versions were proximate to prurience even if the identification of their precise stimulants defies detection now. His 'curiosity' about the female sex – whether captured as transvestite, ventriloquist, or through some other repressed form – assumes concrete shapes. The list is long. Lucina is the story of a woman. The memoir he penned as if Lady Vane imagines him as a woman. His perceptive treatise on the Management of Children has him disguised in the role of a female doctor ministering to mothers. When Hill was compelled to write under fictitious nom de plumes (because it was no longer profitable to use his own name) he changed his gender and became Juliana-Susannah Seymour (after his niece) or Hannah Glasse. His public fracas with novelist Henry Fielding involved women. This entailed the court case of Elizabeth Canning (an adolescent girl) and Mary Squires (an old gypsy woman) (Fig. 11.11).100

See J. Moore, The Appearance of Truth: The Story of Elizabeth Canning and Eighteenth-Century

The episode lingered. Canning claimed that Squires had kidnapped her and incarcerated her for about six months, a charge Squires denied; eventually, through the amassment of a mountain of detail and verification, Squires prevailed and proved her case. Fielding, presiding as magistrate, leapt to Canning's defence, giving preferment to youth over old age as his main guide to the truth. Hill intervened and won some adherents, though fewer than Fielding. The case dragged on for months. At first it went in favour of Canning, but further reconsideration of the facts eventually adjudicated it the other way. Hill had triumphed. In all these literary and real-life events his identification with the *woman* was uncanny.

Canning's case touched a nerve in the Town, partly because it ominously suggested that witchcraft was then still alive, and elicited still more cartoons and caricatures of Hill, as well as pamphlets and tracts. Now Hill trumpeted his own cause in the name of justice for the gypsy. The convergence of so much attention granted him stardom or infamy (depending on your point of view in 1753): it also guaranteed his role as *lusus naturae*. In the extant caricatures of him in this role, he is framed as someone larger than life, not as the collector or connoisseur amassing objects in the lineage of the seventeenth-century collectors, the Kirchers and Kaempfers.

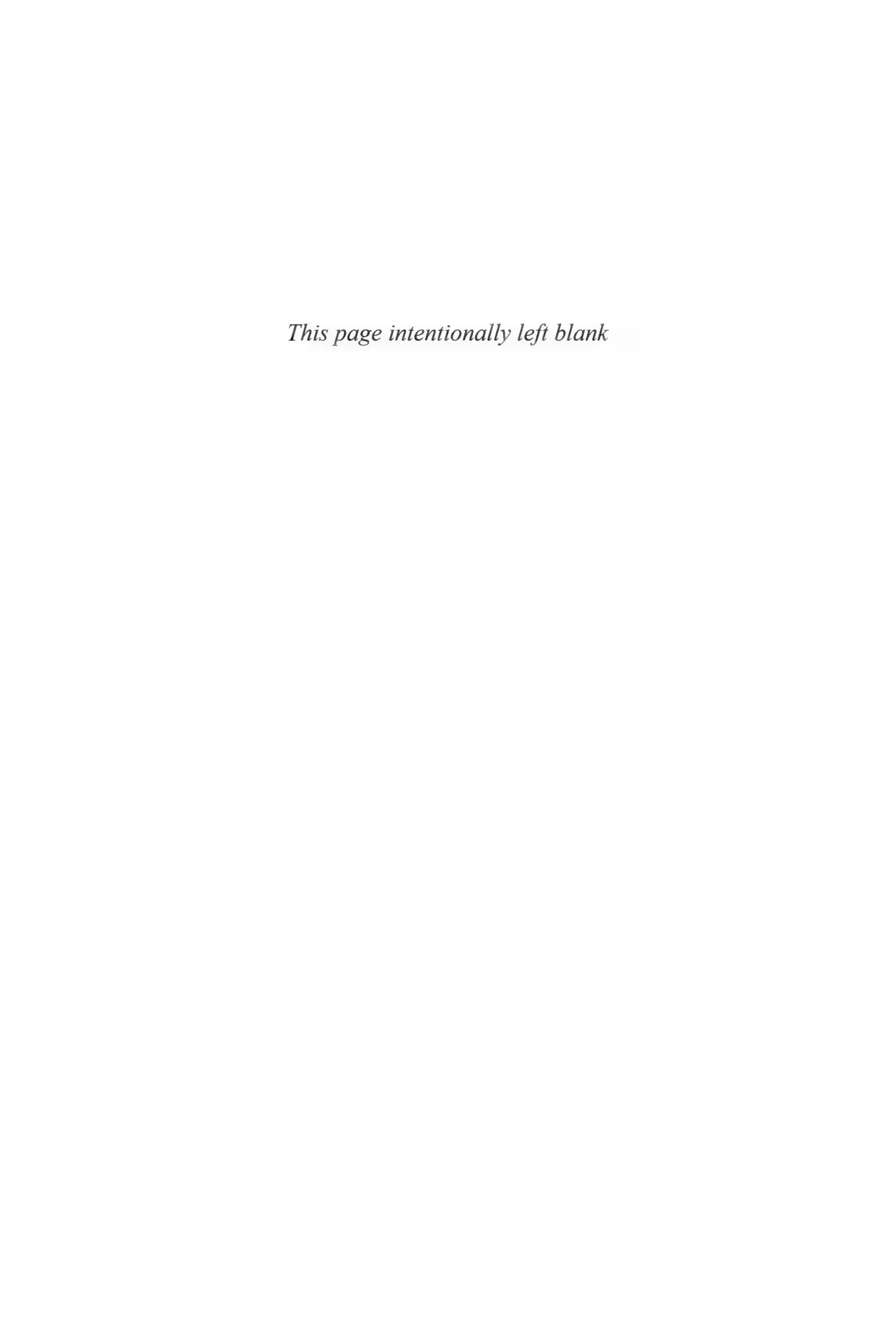
A new, post-Ovidian trope for our Proteus begins to emerge as *lusus naturae* or wonder of nature, as he is shown in Fig 11.1. Here we see Hill together with Samuel Johnson, David Garrick (of stage fame) and the Duke of Cumberland ('Butcher Cumberland' had massacred houses along the Scottish border after the 1745 victory, for which he gained a heroic profile throughout England). None, certainly not Johnson and not even Cumberland, had distinguished himself in just *one* field. Furthermore, each was judged extraordinary for some attribute, or combination of talents, and each acquired his renown in the Town through excess in this field: Johnson for writing prolifically on moral topics, Garrick as perpetually attached to the stage, Hill – more wantonly – simultaneously promoting himself in a dozen fields. Each was affixed to a cause from which the self could not be extricated.¹⁰¹ Less apparent has been the psychological source in that period when the ethos of selfhood itself was under such microscopic scrutiny.

These *lusae* – no longer post-Renaissance jokes or playthings, but marvels awaiting explanation – beg to be understood. Was curiosity inherent, if latent, in their talent and manifested early? Or was the fundament of their curiosity some more random quality: some by-product of opportunity and chance? Some unnamed, rudimentary trait recognised as the difference between ordinary people and (crudely put) 'personalities'? The human analogue, for

Narrative (London, 1994).

¹⁰¹ For the evidence, see Rousseau and Haycock, 'Jew of Crane Court'.

example, of the eighteenth-century Pluchean 'spectacles de la nature', whose anomalies were deemed 'most proper to excite' the curiosity? These are the type of questions we need to put about the lusus naturae, suggesting that the new 'wonders' were located within selves. They are the questions Lord Kames will ask indirectly in circumstances pertaining to remote geographical distance.



Epilogue

George Rousseau

By the time, in 1761–2, when Kames commented on these shifts in novelty with which we started and attacked their appearances among *virtuosi*, Hill had been stereotyped. Kames in not-so-far-away Edinburgh may not have heard of him (he certainly never met him) but – if he had – he would have noticed Hill's versions of wonder and the nervous curiosity Hill aroused. Hence Kames's radical revision of the developing view that novelty could attach to persons too. Yet Kames's position must not be viewed merely within the context of geographical distance as Leask suggests (after all Hill himself was geographically distant from the centre of Scottish Enlightenment culture).¹ Some recourse to familiar versus remote *personal* identities must also be taken into account: those remarkable qualities not yet understood or comprehended at the time of their novel appearances.²

This view was already gathering strength in Alexander Pope's famous coinage in *An Essay on Man* (1734) that 'the proper study of mankind is man.' Gradually man was coming to be seen as the most complex of all creations: perhaps not yet the awesome and chaotic creature he would become in the nineteenth century, but moving in that direction. Curiosity followed in his, and her, footsteps. Human beings were ultimately the most curious objects throughout the creation, as Erasmus Darwin intimated in his various poetic 'botanic gardens' and 'temples of Nature', as he called them in the 1780s. Glancing at this late eighteenth-century tradition, Leask has written, in the conclusion of his discussion of the 'aesthetics of curiosity', that 'it is beyond the scope of the present study to chart the neglected discourse of curiosity in the wider literary field (as championed, for example, in Isaac Disraeli's *Curiosities*

¹ See Leask, Curiosity, 26–7.

² The mystery of partial understanding of the type drives some of this novelty: hence the fundamental *raison d'être* for the *lusus naturae* himself.

of Literature [1791–2] and Dissertation on Anecdotes [1793]).'3 If we did we would observe the convergence of several categories in this late Enlightenment world: curiosity, wonder, subjectivity, identity, personality, as well as the newly developing hunger and thirst for knowledge. In all these overlaps the ethos of sensibility, then in its maturity, played a part.4 But we should not think subjectivity and personality were qualities blithely construed or uncontested in the early nineteenth century, or imagine that – among Romantic artists and thinkers, philosophers and scientists – they suddenly peered out of the blue. They arose slowly from a dense web of prior concerns in the long eighteenth century and would continue to trouble Europe, especially under the aegis of Kant's philosophical revolution. No wonder then that the same Isaac Disraeli, the son of inconspicuous Sephardic Jews in London, whose fame was made by a trilogy of weighty books called Curiosities of Literature, totalling almost a million words, was so mightily perplexed by 'Proteus Hill'.5 Hill had died in 1775, during Disraeli's formative years: it was during this last generation, Disraeli thought, that curiosity was transforming itself as the thirst for knowledge was – finally – becoming quenched.

Accordingly, the organising principle of his trilogy – the fundament of his whole discourse of 'curiosities' – is the *novelty* of the knowledge he has amassed. His grasp embraces everything abstruse, remote, out of the way, especially of objects of little-known knowledge and the 'curious persons' responsible for all things recondite. Disraeli opens his *tour de force* by gazing on libraries and their contents, almost as if books and manuscripts in history had constituted the only contents of the old 'cabinets of curiosity';⁶ and he makes perfectly clear in his opening sentence that 'human curiosity'(his phrase) is his true subject here. But the realms of curiosity in his retrieved discourse are entirely verbal: book reviews are 'inventions', the 'novel' is an 'invention', the 'essay' a 'prodigy of learning', and so forth. The point of retrieval on this massive scale is entirely human, according to Disraeli, even the cunning treatment he gives to such topics as 'a history of gloves' and 'the Custom of Saluting after Sneezing'. Curiosity – for Disraeli long a passion or faculty of the mind and

³ Leask, Curiosity, 32; Isaac Disraeli contributed significantly in the 1790s to the neglected discourse.

⁴ For late Enlightenment sensibility, see G. J. Barker-Benfield, *The Culture of Sensibility* (Chicago, 1992).

⁵ Disraeli viewed Hill as a perplexingly incongruous figure; paradoxical, incommensurate, flawed, 'curious' by virtue of being 'so often unjustly depreciated', yet at bottom 'this singular genius'. See I. Disraeli, *The Calamities and Quarrels of Authors*, 2 vols (London, 1859), ii, 196–7.

⁶ The libraries of ladies and gentlemen as sites of 'curiosity' had, of course, gone back at least a century before 1792, even before Addison and Steele wrote about them in *The Spectator*, but Disraeli imagines them here on grand, national landscapes rather than as the discreet property of individuals.

⁷ I. Disraeli, *Curiosities of Literature*, 3 vols (1792) i, 216 and 126–8 respectively. The extensive biographical memoir by Disraeli's son prefixed to the gala edition of 1881 forms an invaluable

now a major preoccupation of the inquisitive – has also become a discursive vehicle on which to pin his vast reading organised according to narrative principles of artifice and cleverness. Original readers of 1791–2, or during the next eight decades as the trilogy miraculously continued to be reissued in many new editions, marvelled at the author's jugglery of materials and began to imitate it.⁸ Retrieval thus functions as more than the gathering of materials, in the aftermath of Samuel Johnson's own cause for a new history of knowledge, for a national English literary history.⁹ Disraeli's genius was the ability to discover arcana and organise diverse topics along lines of radical ingenuity for his 'Kingdom of Curiosity' from the dawn of time.¹⁰

In this sense he augurs curiosity's pathway in the nineteenth century: the continuing preoccupation with curiosity as inherent in *things* but now equally embedded in *persons*. Nineteenth-century compendiums for the curious about the animal, mineral and vegetable kingdoms continued to be produced in record numbers, of course, especially under the weight of the developing microscope. However, equal numbers of collections began to appear about human kind. Scan the decades after Disraeli's death in 1848 and the annals of publication reveal, almost annually, what the reading public wants: no longer merely the old-style medleys and hodgepodge compendia about nature – or Nature – but diverse compilations about *people*: ordinary, different, proximate, remote, normal, abnormal, and so forth. The object of curiosity's attention in early modern science has greatly altered by the mid-nineteenth century; is radically different from what it was in the early modern world of Bacon and Sir Thomas Browne, Pepys and Leeuwenhoek, with which so much of this book has concerned itself.¹²

As the curtain dropped on Hill's life, Kames's suspicion about the existence of 'novelty in persons too' reverberates in modern ears. For Hill had properly belonged to Kames's genealogy of unusual persons according to their degree of novelty as much as in more conventional traditions of the history of science or history of medicine and botany. He was a transitional figure between the Kirchers and Kaempfers on the one hand, and the Romantic aesthetes who took subjectivity for granted on the other. When Disraeli tried to revive him a generation after his (Hill's) death, the gesture was nostalgic in small part

guide to understanding how 'novelty guided his father in the choice of subjects' (i, xliii).

⁸ For the context of the trilogy's success, see M. Spevack, *Isaac Disraeli on Books: Pre-Victorian Essays on the History of Literature* (London, 2004); for an example of the imitations, see Joseph Taylor's series of *Curiosities for the Ingenious* (London, 1821–3).

⁹ Disraeli amassed his trilogy with the Johnsonian 'thirst for knowledge' in mind, especially the compendious dream of 'an anecdotal literature' and national 'literary history' (i, xli–xlii).

This may be part of the explanation for the numbers of works imitating him in the next two decades, apart from Joseph Taylor's series.

¹¹ Such as C. Williams, *Curiosities of Animal Life* (London, 1848). Scan the decades of the nineteenth century and dozens of these books appear each year, in English, French and German.

¹² For its origins, see the incisive article by Daston, 'Curiosity in Early Modern Science'.

only: much more depended on Disraeli's trustworthy intuition that Hill had possessed an extraordinary type of curiosity worthy of commemoration – the interior one lodging within whose energies required unpacking. Hill was no Mackenziean 'Man of Feeling' or Wertherian 'Creature of Sensibility', but another type of 'wonder' – *lusus naturae* – despite uncertainty about the precise species.¹³

Yet Kames was no Nostradamus. His intuition, to a certain extent, had come true: the novelties of the nineteenth century would lodge in persons far more than in things.14 As the generations after Hill's death passed, oldstyle curiosi gradually became relics: a category of 'curiosities' themselves, mentally imaged by dress and social class, no longer viable or comprehensible characters in the pre- or post-Darwinian world. A new class of 'wonders of nature' eventually replaced the old, yet *lusus naturae* was barely used. Science was becoming professionalised; scientific institutions proliferating; the new searcher becoming someone who had to legitimise himself (and herself) by a return to the things – the natural objects – of this world. To the degree that lusus naturae (now usually translated from the Latin among an increasingly secular populace) carried any valence at all, apart from a penny Guinness record-book, it denoted objects rather than persons. It still elicited images of objects and places strewn on faraway continents, wonders of the animalvegetable-mineral kingdoms by virtue of their anomalies, even artificial contraptions made by human beings that were noteworthy as a consequence of the incredulity that they could have been constructed at all.¹⁵

But human beings did not drop out; rather, their lure intensified. They were the most complex systems of all. Nineteenth-century psychology and psychiatry charted diverse classifications of aberrant and extraordinary persons with the same relish of the early naturalists on the strand of the sea in search of their specimens. The pathological person could be 'wondrously' deviant, biologically marked, but was rarely suffering from a surfeit of curiosity. Petulantly 'curious' imaginations were classified as deviant or wondrous. ¹⁶ Curiosity itself gradually dropped out, except as the bland attribute ascribed to Newton-style geniuses. But curiosity as the designation of a species, or genus, of human being who constituted the site of this curiosity almost ceased to exist. Set the dials to 1900, and the human 'wonder of nature' has practically faded: the *lusus naturae* has become an old topic for antiquarians to retrieve.

As the Darwinian revolution takes hold after 1860 yet another twist will occur: the notion that these 'wonders' are themselves evolving.

¹⁴ By the 1790s 'biographical curiosities' began to appear in numbers; see, for example, Biographical Curiosities; or, Various Pictures of Human Nature (London, 1797).

The anonymous *Britannica curiosa: or, a Description of the Most Remarkable Curiosities, Natural and Artificial* (London, 1776) also anticipated these trends to come.

¹⁶ E. Shorter, A History of Psychiatry: From the Era of the Asylum to the Age of Prozac (New York, 1997).

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compiled by Michael Tombs

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